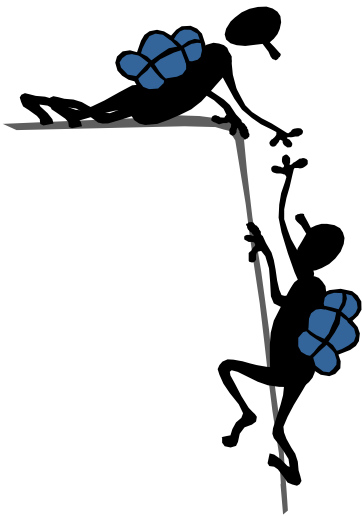


8th Grade

STUDENT GUIDE

for

ARIZONA'S INSTRUMENT
TO
MEASURE STANDARDS

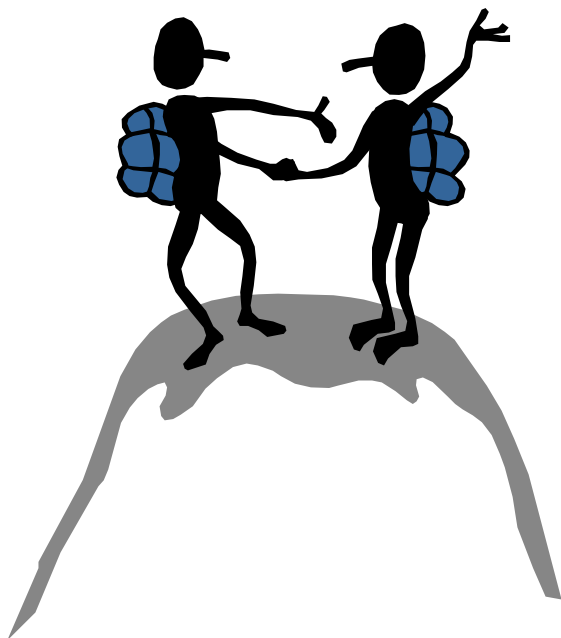


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Arizona Department of Education

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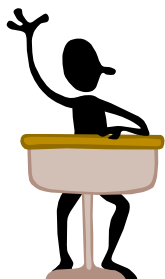
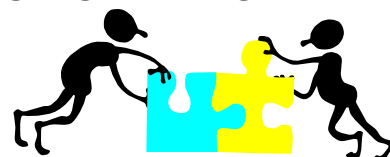
**Everyone can be a
winner in school!**





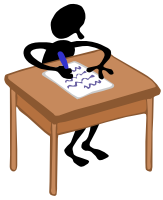
Preparing for Success in School and on AIMS

Sometimes we make the mistake of thinking that learning is just a matter of luck—some folks have it and other folks don't and nothing is going to change that. But that's not true! People who seem to learn things easily have good learning skills. That's right - a skill. Learning is a skill like riding a bike is a skill. Anyone can improve his or her learning skills. Here are some hints to help you do that.



- Take charge of your own learning! Find out what you need to know. Monitor your progress. Self-assess what you know already, what you can do well, and where you need to improve.
- Ask for help if you are having difficulties in a particular area. There are *no* silly questions!
- Attend school regularly; you miss out if you are not there!
- While you are in school, pay close attention and participate in class. Ask questions of the teacher if you do not understand what you are supposed to do. And take notes! If you never learned how to take notes very well, ask your teachers if there is a study course or if they will help you learn to take notes. It's worth your time to learn *this* skill because it helps you improve your *learning* skill.

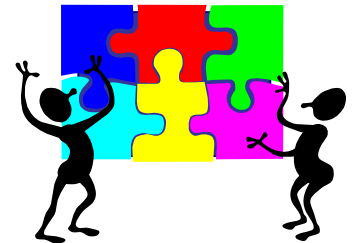
- Thoroughly read and be familiar with the "*Arizona Academic Standards*" document so that you understand what you are expected to know and be able to do.



- Ask questions and ask for help if you do not understand this *Guide*, the Standards document, or your schoolwork.

- Have a scheduled time every day to do homework and to study. It helps to have a specific *place* (not necessarily a separate room) to work on school assignments that will help you stay on task.

- PRACTICE, PRACTICE, PRACTICE! NOTHING happens without it. No athlete, no musician, no mathematician, and no writer became "good" by accident.



- Don't wait until you're in high school to think about high school graduation requirements. You need to be prepared now so that you are not working to "catch up" when you get there.



Don't let this be you
pretending that you don't
have to work!!!!

Now, let's get going!





Questions about AIMS

The purpose of this *8th Grade Student Guide to AIMS* is to give you helpful information about the eighth grade assessment (Arizona Instrument to Measure Standards), which will assess your readiness for high school. This *Guide* will help you understand how the standards will be tested, familiarize you with the types of questions you will be asked, and explain how your responses will be scored. **Please note that that this *Guide* is formatted specifically to save space and does not represent the actual formatting used in AIMS.**

What is AIMS?

Arizona's Instrument to Measure Standards (AIMS) measures your achievement of the Arizona Academic Standards adopted by the state Board of Education in three subject areas: Reading, Writing, and Mathematics.

What subjects are tested on AIMS?

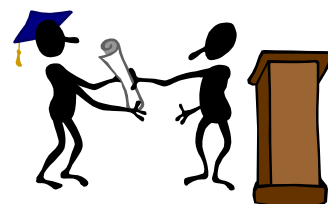
Reading, Writing, and Mathematics will be tested with one test for Reading, one for Writing, and one for Mathematics that covers six areas: Number Sense, Logic, Algebra, Geometry, Data Analysis and Probability, and Measurement.

Who has to take AIMS?

All students will take AIMS in grades 3, 5, 8 and in high school. Grades 3, 5, and 8 are benchmark years.

Benchmarks are checkpoints to determine if you are making progress and are where you need to be to meet the

standards. The high school level test will be one of the requirements for a diploma beginning with the Class of 2006. These requirements may be modified or adapted for some special needs students.



When will I take AIMS?

You will take the test in spring of eighth grade. You will take the test only once in your eighth grade year; at this time there is no opportunity to re-take the test.

What will be tested on AIMS?

Copies of the *Arizona Standards and Performance Objectives* were sent home to your parents in a newsprint format. Test items were written to measure specifically the Standards and Performance Objectives described in that document. The Standards remain consistent from kindergarten to twelfth grade representing skills you have been learning since you started school. The Standards can be found on our website (see below). Although every Standard in Reading, Writing and Mathematics is assessed each time AIMS is given, different Performance Objectives are tested on different forms of the tests. Therefore, you need to be prepared for all Standards and Performance Objectives.

How can I use this *Guide* to prepare for AIMS?

This *Guide* is divided into the three subject areas tested on AIMS. It includes the Standards for each area that you are expected to know, a short explanation of each testing format, hints for test taking, sample test questions, and a scoring guide for written responses. It will NOT TEACH you what you should know and be able to do to score well on the tests, but it will help you become familiar with the tests. Knowing what to expect can help you be successful.

Where can I find out more about Arizona state guidelines for AIMS?

The Arizona Department of Education website: <http://www.ade.az.gov>

Types of Items

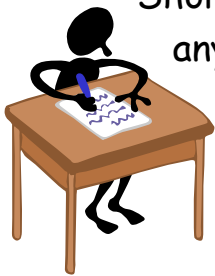
Three basic types of items will be used on AIMS and are explained below.

Multiple-choice

Multiple-choice items will ask you to select the best response from four possible answer choices and indicate your choice by bubbling in the corresponding letter on an answer sheet. You will be given directions on test day that will explain this more thoroughly. Although some responses will require a recall of facts or the computation of a correct answer, many of the items require higher-level thinking. On multiple-choice questions, you must read ALL the responses and choose the BEST answer. Each multiple-choice item is scored correct (1 point) or incorrect (0 points) and contributes one point to the overall score. You will find these types of questions on the Reading, Writing, and Math tests.



Short Answer



Short answer items will require you to write your own answer and could be anything from a few words, a phrase, or an equation, to a few paragraphs. Many of these items will ask you for an answer and then ask you to explain why, supporting your answer with reasons or examples from the text, or providing justification for your answer. In the Math test, you will need to show the steps (in detail) required to solve the problem in order to earn full credit. Student responses on short answer items will be given 0, 1, 2, or 3 points based on a scoring guide (a rubric) developed for each specific item. A response is scored based on the quality and completeness of your response. You will find these short answer items on the Reading, Writing, and Math tests.

Extended Response



The extended response item will ask you to respond to a prompt, which might include writing a letter, an essay, or a narrative.

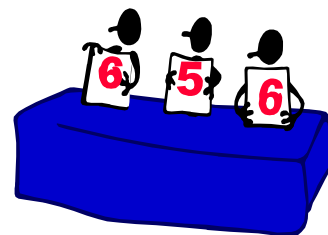
These responses will require a well-developed and well-organized presentation of ideas that follow a particular format suitable to the purpose and audience. You will be expected to develop your written response by following the steps in the writing process: prewriting, drafting, revising, editing, and producing a final copy.

You will be provided with a revision checklist to guide your work. Your finished copy, not your prewriting or rough draft, will be scored using a six point rubric that scores each trait or characteristic of effective writing. The rubric for this type of item is provided in the Appendix B of this *Guide* on page 33. You will find this type of question on the Writing test only.

Scoring Short and Extended Writing Responses

This is where your written communication skills become so important. Although the rubrics used for scoring in all the content areas are flexible enough to allow for your own unique and creative response, your written response still needs to be thoughtful and appropriate for the audience and purpose.

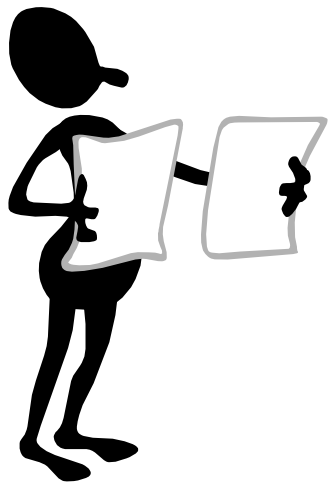
"How long does it have to be?" you may ask. In these types of questions, students will sometimes offer a very limited, or minimal, written response (for example, a few words when complete sentences or fully developed paragraphs are needed). The reader is left to guess what you mean. Partial answers that do not fully answer the question will only earn partial credit. Responses that are off the topic, profane, or illegible will be considered non-scorable and earn 0 points.





READING

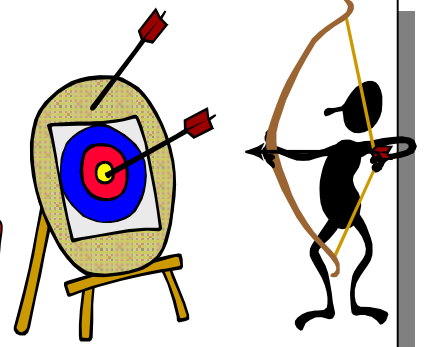
Your transition to high school will be smoother if you have the skills you need to be successful. In high school, you will be expected to read, discuss, analyze, and interpret sophisticated material, not only in literature class, but also in science, math, and social studies, as well. Beyond high school, reading will continue to be a critical skill because it is fundamental to all learning, and we are lifelong learners. It can open our minds to people, places, and ideas beyond our own experiences. It gives us the knowledge we need to make informed choices as individuals in our personal lives and as responsible citizens in a democratic society.



About the Test

On AIMS-Reading, you will be asked to read several passages, both fiction and nonfiction. You may be given informational text to read, such as consumer information or manuals. The questions will assess your ability to understand, interpret, and analyze what you have read. Both multiple-choice and short answer responses will be included. There are approximately 40 items on the reading test, which should take about 1-2 hours to complete. One sample passage is provided here, followed by a set of questions similar to ones you will find on the test. Reading this passage and answering the questions may help you prepare for the test.

Hints for Improving Your AIMS - Reading



- You will be asked to read different types of fiction and non-fiction. **Adjust** your reading to your purpose. Read each passage and the accompanying questions **carefully**.
- In multiple-choice questions, **choose the best response** to the question. In short answers, be sure to answer the question clearly and completely. Be aware of your audience; be sure that your answer is adequately explained for the reader. For example, if asked to cite an example or support your answer from the text, specify clearly what the example is. An incomplete response will earn partial or no credit.
- **Think** about each question before you respond. In short answer questions, **give yourself time** to organize your thoughts **before** you begin writing your response.
- **Manage your time** so that you won't feel rushed answering questions that require a detailed response. Again, this is not a timed test, but you do want to use your time well.

LANGUAGE ARTS STANDARD 1 - READING: ESSENTIALS LEVEL GRADE 8 CONCEPTS

Students learn and effectively apply a variety of reading strategies for comprehending, interpreting, and evaluating a wide range of texts including fiction, nonfiction, classic, and contemporary works.

1R.E1: Use structural analysis skills such as identifying root words, prefixes, suffixes, and word origins to decode words unfamiliar in print

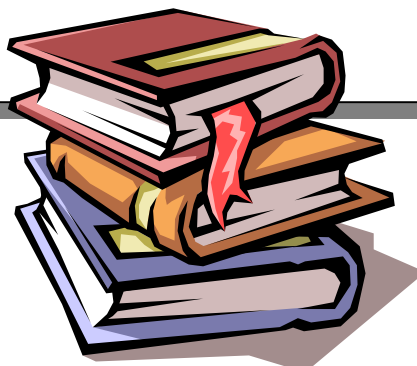
1R.E2: Use reading strategies such as making inferences and predictions, summarizing, paraphrasing, differentiating fact from opinion, drawing conclusions, and determining the author's purpose and perspective to comprehend written selections

1R.E3: Analyze selections of fiction, nonfiction, and poetry by identifying the plot line; distinguishing the main character from minor ones; describing the relationship between and motivations of characters; and making inferences about the events, setting, style, tone, mood, and meaning of the selection

1R.E4: Identify the author's purpose, position, bias, and strategies in a persuasive selection

1R.E5: Evaluate an instructional manual such as assembly directions or user's guide for clarity and completeness

1R.E6: Compare and contrast the historical and cultural aspects of literary selections



SAMPLE READING ARTICLE

Directions: Read the following article and answer Reading Questions 1 through 10.

PELÉ



Pelé, pictured here in 1962, led his Santos club to World Club Cup Championships in 1962 and 1963. He played soccer professionally for 22 years and was considered the greatest player in the world. (Reprinted with permission by AP World Wide Photo)

In the history of sports, there have been a handful of special athletes who transcended their game, their time, and especially the skills of everyone playing around them. In basketball, that player was Michael Jordan. In baseball, it was Babe Ruth. Football had Jim Brown; hockey had Wayne Gretzky; boxing had Muhammad Ali; and track and field had Carl Lewis. In soccer, that player was Pelé. He burst upon the scene at World Cup '58 at the age of 17, leading Brazil to victory and playing the game on such an astounding level that he was immediately hailed as the best footballer in history. Born in the desperately poor village of Tres Coracoes, Edson Arantes do Nascimento did nothing but work on his soccer skills from the time he could walk. Wherever he went, he would kick something in front of him - a wadded-up sock, bundled rags, rotten grapefruit, tin can, or crumpled newspaper - and at sometime early in his life, people began calling him Pelé, which is believed to be a play on the word pelota, or ball. Pelé's father was a semipro player who earned a few dollars a game to support the family, but when he injured his knee and had to quit the sport, responsibility for generating that extra income fell to his young son. By the age of 12, Pelé was the best player in the region, and at 15 he had earned a spot on Brazil's powerful Santos club. In his first full season with Santos, Pelé scored a record 65 goals. And after his coming-out party in Stockholm at World Cup '58, he renegotiated his contract and became the highest-paid team sports athlete in the world.

Santos was happy to pay him, for they knew in Pelé they had soccer's first international drawing card. Right after the World Cup, club officials began setting up a world tour to showcase their young star, sometimes playing three games a week. The millions they raked in enabled Santos to purchase the best players in Brazil as Pelé's supporting cast, and this group formed the nucleus of the team that won the World Club Cup in 1962 and 1963.

Still just a teenager, he went on to score a mind-boggling 127 goals in 1959. Between the years 1958 and 1973, Pelé led Santos to 11 Brazilian championships and scored more than 1,200 league goals, and he also netted close to 100 goals in 108 international matches. He won every award imaginable, from South American Player of the Year to North American Soccer League (NASL) MVP. In World Cup competition, Brazil lost just once when he was in the lineup and was a perfect 8-0 when he scored a goal. Pelé scored 12 World Cup goals in 14 matches, and he is still the only man to play for three World Cup champions.

Go On



SAMPLE READING ARTICLE, continued

In 1969, Pelé scored his 1,000 Brazilian league goal in his 909th match before 80,000 fans and a national television audience. Two years later he played his final game for the national team, this time with 180,000 fans in the audience, all of whom chanted Fica! Fica! (Stay! Stay!) throughout the match. He retired from the Santos team in 1974 but soon took his skills to the United States, the only place in the world where he was not instantly recognized. Some wondered why, after dominating the top levels of soccer for 15 years, Pelé would want to play in a place where people did not appreciate what he had accomplished and did not understand the game he so loved. But those people missed the point.

“I looked and saw another mountain to climb,” he explained. He worked his magic on the field and off, appearing on talk shows, conducting clinics, and making public appearances everywhere his team, the New York Cosmos, played. He drew huge crowds to every game, and he blazed a path for the international stars who soon followed him to the North American Soccer League. Pelé was crowned league MVP in 1976, then led the Cosmos on a highly successful world tour. In 1977, the team won the NASL championship. Pelé put professional soccer on the map during his time in the United States, instantly boosting annual NASL attendance from a few hundred thousand into the millions. His final match, a game between the Cosmos and the Brazilian national team, still ranks among the most moving in the history of sports. He played for New York in the first half, then switched uniforms to play for his country in the second half. The event drew 75,000 people and was broadcast to 38 countries around the world. As always, Pelé did not disappoint, scoring for both sides.

Pelé planted the seeds of soccer in the United States. When he arrived in 1974, barely 100,000 players were registered with the U.S. Soccer Federation. By the time he left, there were nearly half a million. Today, that figure stands at around two million; there are also 13 million kids under the age of 18 playing the sport and more college soccer teams than football teams. In 1983, Pelé began a personal lobbying campaign to bring the World Cup to the United States. In 1988, FIFA announced that America would host World Cup '94, proving Pelé had as much clout off the field as on, and securing his legacy in the United States for all time.



“Pelé” in *Soccer...A History* by Mark Stewart, published by Franklin Watts. Used with permission of the publisher.

SAMPLE QUESTIONS – READING

Question 1 (concept 1R.E1.PO1 – Identify the effect of prefixes and suffixes)

What does the word *renegotiate* mean?

- A. to cancel negotiations
- B. to refuse negotiations
- C. to negotiate again
- D. to negotiate before

Question 2 (concept 1R.E1.PO2 – Confirm meaning of figurative, idiomatic, and technical language using context clues)

Read this statement from the article.

Club officials began setting up a world tour to showcase their young star.

What does the word *showcase* mean, as it is used here?

- A. sell
- B. praise
- C. display
- D. introduce

Question 3 (concept 1R.E2.PO1 – Identify main ideas' critical and supporting details, author's point of view)

Which of these statements BEST supports the statement that Pelé put professional soccer on the map during his time in the United States?

- A. Pelé's accomplishment was to be named the league's Most Valuable Player in 1976.
- B. Pelé's team won the North American League championship in 1977.
- C. Pelé's participation boosted the North American Soccer League attendance into the millions.
- D. Pelé's final league match is considered one of the most moving in the history of sports.

Question 4 (concept 1R.E2.PO2 – Distinguish fact from opinion)

Which of the following is an opinion?

- A. "Pelé had as much clout off the field as on."
- B. "At 15 he had earned a spot on Brazil's powerful Santos club."
- C. "He became the highest paid team sports athlete in the world."
- D. "Pelé's father was a semipro player who earned a few dollars a game."

Question 5 (concept 1R.E2.PO5 - Determine cause and effect)

What was the result of the Santos club's decision to pay Pelé more than any other athlete?

- A. The club did not want Pelé to retire.
- B. Pelé scored more than 127 goals in 1959.
- C. The club was able to purchase the best players in Brazil.
- D. Pelé won every award in South America and North America.

Question 6 (concept 1R.E3.PO3 - Draw defensible conclusions based on stated or implied information)

Which of these is the MOST LIKELY reason Pelé devoted his life to soccer?

- A. pride in country
- B. love of the game
- C. desire for national fame
- D. failure to exceed in another sport

Question 7 (measures 1R.E1.PO1 - Identify the effect of prefixes and suffixes on root words)

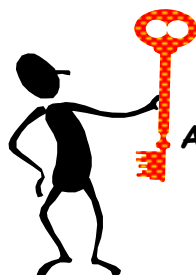
In the article, Pelé is called "the best footballer in history." Adding *er* to the word football changes

- A. an object to an action
- B. an action to an object
- C. an object to a person
- D. a person to an object

Question 8 (concept 1R.E2.PO1 - Identify the main ideas, critical and supporting details)

Which of these BEST supports the idea that Pelé still had great influence even after his final match?

- A. The United States hosted the World Cup in 1994.
- B. A United States team embarked on a world tour.
- C. Soccer in the United States drew major international stars.
- D. There were almost 100,000 soccer players in the United States in 1974.



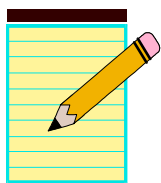
Answer key is on
page 47

What facts does the author offer to support the claim that Pelé was "soccer's first international drawing card"?

[illegible]

Explain why Pelé called the United States "another mountain to climb" in the world of soccer. In your explanation, briefly describe what he did to change the situation.

[illegible]



WRITING

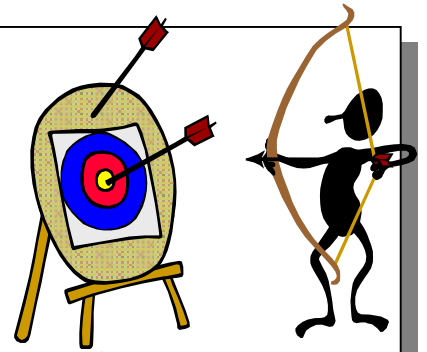
Writing is a critical skill in effective communication. Whether you are writing an e-mail message, an ad for your business, a personal letter, or a formal report for school or work, being able to express your ideas clearly to your audience is important. But becoming a good writer is not easy. It takes effort and the development of a variety of skills: clear ideas, organization, a voice that holds the interest of your audience, and a consistent control of language, including word choice, sentence structure, and conventions (spelling, grammar, punctuation). In high school, you will continue to build on the writing skills you have already developed.

About the Test

Questions in AIMS-Writing will require both multiple-choice and short answer responses. You will also be asked to write one extended writing piece on a specific topic. This writing test will be completed in one session, so all steps in the writing process, including planning, revising, editing, and writing a final copy will be done in that one session. The test has approximately 40 items and one extended writing response. It should take approximately 2-3 hours to complete. Sample questions are provided on the next few pages. There is also an example of a prompt (writing topic) and scored student responses to this prompt.



Hints for Improving Your AIMS - Writing



- **Listen** to directions and **read** each question **carefully**. **Remember** what you have learned about the writing process as you work through the questions. **Think** about each question. What is the question asking you to do? This is your task (or purpose) for writing. Who is your audience? Keep your audience in mind as you write. Take time to organize your thoughts before you begin. For longer responses and for the extended writing prompt, you may want to create a graphic organizer (outline, web, chart, mapping, clustering etc.) to plan and organize your ideas.
- In a short answer, be sure to **answer** the question **clearly, completely, and thoroughly**. **Don't assume** your audience (the reader) will know what you mean; you need to explain your ideas with adequate details. An incomplete response will only earn you partial or no credit.
- After you complete your draft on the extended writing prompt, you will be provided with a checklist to help you revise your work. **Use this checklist** to refine the content of your writing and ensure that it says what you want it to say. Keep in mind the traits (qualities) of effective writing.
- **Edit** your writing **carefully**. Your audience (the reader) needs to be able to understand the ideas you are expressing without being hindered by spelling, punctuation, and grammar mistakes that interfere with the message. **Be sure your handwriting is legible**.
- In real life writing situations, you may have more time to revise and edit your work, perhaps getting input from others before writing a final copy. In a testing situation, this is not possible. Therefore, you will need to make the best use of the time and skills you have to complete this writing task in one sitting.

LANGUAGE ARTS STANDARD 2 - WRITING: ESSENTIALS LEVEL GRADE 8 CONCEPTS

Students effectively use written language for a variety of purposes and with a variety of audiences.

2W.E1: Use correct spelling, punctuation, capitalization, grammar and usage, along with varied sentence structure and paragraph organization to complete effectively a variety of writing tasks

2W.E2: Write a personal experience narrative or creative story that includes a plot and shows the reader what happens through well-developed characters, setting, dialog, and themes and uses figurative language, descriptive words and phrases

2W.E3: Write a summary that presents information clearly and accurately contains the most significant details and preserves the position of the author

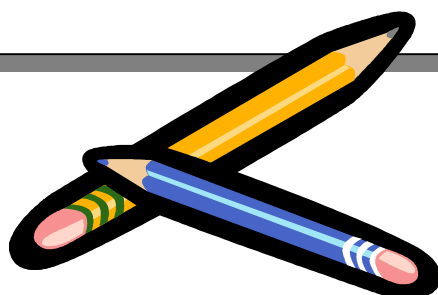
2W.E4: Write an expository essay that contains effective introductory and summary statements and fully develops the ideas with details, facts, examples and descriptions

2W.E5: Write a report that conveys a point of view and develops a topic with appropriate facts, details, examples, and descriptions from a variety of cited sources

2W.E6: Write formal communications, such as personal or business letters, messages, directions, and applications in an appropriate format and for a specific audience and purpose

2W.E7: Write a response to a literary selection by supporting ideas with references to the text, other work, or experiences

2W.E8: Demonstrate research skills using reference materials such as a dictionary, encyclopedia, and the thesaurus to complete effectively a variety of writing tasks



SAMPLE QUESTIONS - WRITING

Question #1 (concept 2W.E1.PO4 - apply standard grammar and usage, simple, compound, complex sentences)

Read the sentences below. Then choose the best way to combine the two sentences into one.

**Mr. Matthews is our English teacher.
Mr. Matthews is also the boys' basketball coach.**

- A. Mr. Matthews is our English teacher and also he is the boys' basketball coach.
- B. Mr. Matthews is our English teacher, and Mr. Matthews coaches boys' basketball.
- C. Having coached boys' basketball, Mr. Matthews also is our English teacher.
- D. Mr. Matthews, our English teacher, is also the boys' basketball coach.

Question #2 (concept 2W.E6.PO1 - write formal communications in appropriate format for a specific audience and purpose)

In a formal business letter, what directly precedes the salutation (greeting)?

- A. the date
- B. the address of the sender
- C. the address of the receiver
- D. the body of the letter

Question #3 (concept 2W.E8.PO1 - implement a research strategy by selecting the best source for a specific research purpose)

If you were writing a research paper on teen violence in the United States, select the best source for information on this topic.

- A. an encyclopedia, such as *World Book*
- B. local newspaper articles
- C. periodicals, such as *Time* and *Newsweek*
- D. interviews with the local sheriff's department

Question #4 (concept 2W.E2.PO2 - in a story, use simile, metaphor or descriptive words or phrases)

Read the following introduction to a story.

The cold sent a shiver up my spine. The thin sliver of the moon cast an eerie shadow across the path ahead of me. I pushed forward, thinking only of my destination.

Choose the descriptive words and phrases that establish the setting.

- A. "pushed forward"
- B. "across the path ahead of me"
- C. "thinking only of my destination"
- D. "a thin sliver of the moon cast an eerie shadow"

Question #5 (concept 2W.E3.PO1 - write a summary using your own words except for quoted material)

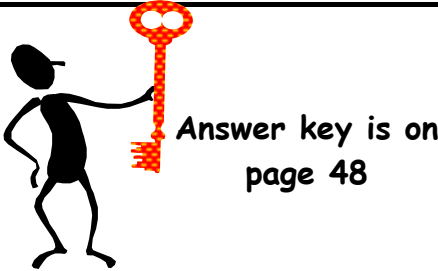
Read this paragraph from an article about Arizona.

First time visitors to the Arizona desert are often overwhelmed by the heat, especially in the summer when temperatures can range from 100-120 degrees. A few precautions can make a big difference. Drinking plenty of water, avoiding the sun, and minimizing outdoor activity in the peak hours of the day are just some ways desert dwellers have learned to adapt to the hot summers. Probably the best advice to tourists is to visit the desert in the winter when the climate is almost perfect.

Using details from the paragraph, briefly summarize the main idea.

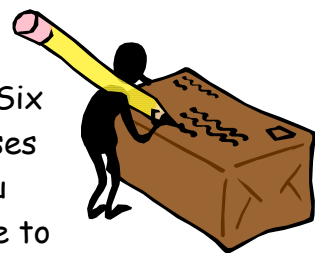
Question #6 (concept 2W.E6.PO3 - formal communication: express ideas that are clear and related to the topic)

You are interested in volunteering during the summer as an assistant camp counselor for young children. Write the body of a letter explaining why you would be an excellent choice for the job. Be sure to include a beginning, middle, and an ending.

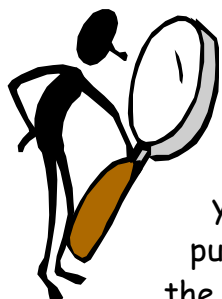


ABOUT EXTENDED WRITING RESPONSES

On the Writing test, you will be given a task, called a prompt, (for example, write a business letter, a persuasive essay, a narrative) with specific directions regarding audience and purpose. A sample prompt and the standard it assesses are stated below. The *Official Scoring Guide for AIMS Writing* (Six Trait Rubric) is located in Appendix B, and samples of four student responses are provided on the following pages. Here are some suggestions to help you understand the expectations for this writing response and help you prepare to take the writing section of AIMS:



1. **Read the prompt below.** Be sure you understand the purpose, the task, and the standard being assessed.
2. **Review the *Official Scoring Guide for AIMS Writing* (Six Trait Rubric).** Your paper will be scored on a 1-6 point scale, with 1 the lowest and 6 the highest, for each trait (characteristic) of effective writing.



3. **Read the student responses to the prompt.** Note strengths and weaknesses in the paper as you read. Does the writer accomplish the task? Is the writer's message clear? Does the writer stay focused on the topic? Are the ideas supported with relevant details? Are the ideas organized so that you can logically follow them? Is the voice appropriate for the audience and purpose? Did the writer carefully choose words that are clear and convincing? Do the sentences have a natural flow? Is the paper carefully edited?
4. **Examine the score sheets for these four sample papers.** Compare the scores and the comments to the rubric. This will give you an idea of what the points on the scale actually look like.
5. Discuss with other students and your teacher why one paper is stronger or more convincing than another.
6. **Practice writing a response to this sample prompt.** To determine what your strengths are, score your own paper using the rubric located in Appendix B in the back of this study guide, or ask a teacher to help you score it. Work on the specific areas you need to improve to be a more effective writer.

Question 1 (concept 2W.E2 - Write a personal experience narrative or creative story that includes a plot and shows the reader what happens in a sequence that is clear through character, setting, dialogue when appropriate, and theme and uses descriptive words and phrases or figurative language)

Sample Writing Prompt: Your local newspaper is running a series of articles to highlight the positive things teenagers do. The editors have asked their readers to submit stories about teens helping others that they intend to publish in this series.

WRITE A STORY to submit to the newspaper about a time when you or someone you know did something for someone else that **MADE YOU FEEL PROUD**. TELL WHAT HAPPENED and HOW YOU FELT about the experience. Use your own paper and ask your teacher to help you score your final results.

This is the writer's checklist you will see on the 8th Grade AIMS writing test. Practice using it when writing to revise your rough draft before writing your final copy. If you take the time to use it carefully, it will help you write a better paper.

WRITER'S CHECKLIST

- ☐ My paper has a specific audience and a specific purpose.
- ☐ My paper contains a strong controlling idea.
- ☐ My paper stays on topic.
- ☐ My paper includes specific and relevant details, reasons and examples.
- ☐ My paper has an effective beginning, middle, and end.
- ☐ My paper progresses in a logical order, and my ideas flow smoothly.
- ☐ My paper contains words that make it interesting.
- ☐ My paper contains sentences that are clear and varied in structure.
- ☐ My paper includes effective use of paragraphing.
- ☐ My paper includes correct grammar/usage, punctuation, capitalization, and spelling.

WRITING SAMPLE 1

I Feel Proud When I Help Someone

Write the final copy of your paper here.

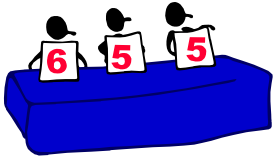
I Feel Proud When I Help Someone

Have you ever helped someone in need? If you have you'll know it makes you feel really good inside. It puts a different light on helping people. I know how this is because I helped a person in need one time, and not only did it make me feel good it gave me a new friend.

There was this old lady that lived across the street from me. I thought she must be very lonely because her husband had passed away and she was living all alone. When I came home from school I would see her on hands and knees digging weeds out of her garden. Then she would load up a heavy wheelbarrow and haul the weeds into a pile. I used to think to myself, 'I wonder if she could use some help?' But I would always dismiss the thought and go play.

One day when I got off the school bus I saw her walking down her steep driveway to get the newspaper. Without even realizing it I picked up the paper and ran over to give it to her. When I handed her the paper I felt kinda funny, until I saw how grateful she was. She was so thankful that she said if I did this every day that she would give me something in return. So as the days went on I continued to get her paper and occasionally help her in her garden. I did get a treat. She gave me fresh baked chocolate chip cookies.

The day came when we were spending a lot of time together. We weeded the garden, burned brush, and washed windows. This is how my neighbor, Mrs Higbee and I became close friends. Even though Mrs. Higbee has moved to a rest home now it still gives me a warm feeling to think back and realize that just be going a little bit out of my way to help my neighbor, that it brought us to be very close friends.



SCORE SHEET FOR WRITING SAMPLE 1

Title: I Feel Proud when I Help Someone

(This is an ACCEPTABLE response.)

Ideas and Content					
6	5	4	3	2	1

Organization					
6	5	4	3	2	1

Voice					
6	5	4	3	2	1

Word Choice					
6	5	4	3	2	1

Sentence Fluency					
6	5	4	3	2	1

Conventions					
6	5	4	3	2	1

NOTE 1: The underlined passages are taken from the *Official Scoring Guide for AIMS Writing* (Six Trait Rubric).

NOTE 2: Although all writing samples in this *Guide* are on one page, two-page originals were "shrunk-to-fit" on one page.

Ideas and Content: This paper scored a **5** in ideas. The writing is clear, focused, and interesting. Main ideas stand out and are developed by supporting details suitable to audience and purpose; the writing makes connections and shares insights. *I thought she must be very lonely because her husband passed away and she was living all alone. When I came home from school I would see her on her hands and knees digging weeds out of her garden. Then she would load up a heavy wheelbarrow and haul the weeds into a pile. I used to think to myself, "I wonder if she could use some help?" But I would always dismiss the thought.*

Organization: This paper scores a **5** in organization. The paper has a strong inviting beginning that focuses the reader on the topic. *Have you ever helped someone in need? If you have, you'll know it makes you feel really good inside.* Smooth transitions that work among all elements (sentences, paragraphs, and ideas) and sequencing that is easy to follow and works with the ideas which develop over time. Details fit where placed. The ending brings the piece to a strong conclusion, reinforcing and reflecting on the main idea of the piece. *This is how my neighbor, Mrs. Higbee and I became close friends. Even though she has moved to a rest home now it still gives me a warm feeling to think back and realize that by just going a little bit out of my way to help my neighbor, that it brought us to be very close friends.*

Voice: This paper scores a **5** in voice. The writer seems deeply committed to the topic and the writing is expressive, engaging, and sincere. *When I handed her the paper, I felt kinda funny, until I saw how grateful she was. The reader feels a strong sense of the writer behind the words. There is a sense of interaction with the reader.* *Have you ever helped someone in need? If you have then you'll know it makes you feel really good inside...I know this because I helped a person in need, and not only did it make me feel good, it gave me a new friend.* The voice does seem to fade at opportune times (moving to the rest home) which keeps it from scoring a 6.

Word Choice: This paper scored a **5** in word choice. Words convey the meaning in an interesting, precise, and natural way appropriate to audience and purpose; words evoke clear images. *I wold see her on her hands and knees digging weeds out of her garden. Then she would load up a heavy wheelbarrow and haul the weeds into a pile...She gave me fresh baked chocolate chip cookies.*

Sentence Fluency: This paper scored a **6** in fluency. The writing has an effective flow and rhythm. Consistently strong and varied sentence structure makes reading aloud easy and enjoyable. The sentence structure enhances meaning by drawing attention to key ideas or reinforcing relationships among ideas. *I know how this is because I helped a person in need one time, and not only did it make me feel good, it gave me a new friend.*

Conventions: This paper scored a **5** in conventions. The writer demonstrates strong control of a variety of standard conventions: spelling, end-of-sentence punctuation, quotations, questions, and parallel structure. Little, if any need for editing.

WRITING SAMPLE 1

Children

Write the final copy of your paper here.

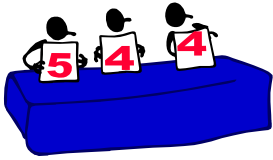
Children

"Come on, hurry up Stacey," I yelled. Stacey yelled back that she was coming. It was Christmas time 1988, Stacey and I were loading gifts into the cars. We were almost ready to leave for Woodburn and deliver the gifts.

At last we had arrived at the church where the children were. My mother asked if Stacey and I would come help with the presents. We got the bags of presents and took them into the church all the little children were waiting for us.

First we had all the children sit down so we could give them their gifts. As they opened the gifts the children's eyes lit up. I had never seen a child so thankful for a coat or boots, then I started to realize how lucky I was for all the clothes I had. I was holding a little three year old girl, who had received a doll that made her really happy. We had our pictures taken and put in the newspaper. After every child had opened their gifts, it was time for us to go home.

This was an experience I will never forget. Seeing the children's faces lit up is something I can't explain. I loved doing that and I would do it again for sure.



SCORE SHEET FOR WRITING SAMPLE 2

Title: Children

(This is an ACCEPTABLE response.)

Ideas and Content 6 5 <u>4</u> 3 2 1	Organization 6 <u>5</u> 4 3 2 1	Voice 6 5 <u>4</u> 3 2 1
Word Choice 6 5 <u>4</u> 3 2 1	Sentence Fluency 6 5 <u>4</u> 3 2 1	Conventions 6 5 <u>4</u> 3 2 1

NOTE 1: The underlined passages are taken from the *Official Scoring Guide for AIMS Writing* (Six Trait Rubric).

NOTE 2: Although all writing samples in this *Guide* are on one page, two-page originals were "shrunk-to-fit" on one page.

Ideas and Content: This paper scores **4** in ideas. The writing is clear and focused. The reader can easily understand the main ideas, and it is clear why this experience made the writer feel good. *First we had all the children sit down so that we could give them their gifts. As they opened the gifts, the childrens eyes lite up. Supporting details are relevant, but may be overly general or limited in places.* It takes the writer some time (two paragraphs) to really get to the point of this piece, the interaction with the children. More time on this, and less on the build-up of details to get there, would have made the focus of this piece stronger. *Some connections and insights may be present. I started to realize how lucky I was for all the clothes I had.*

Organization: This paper scores a low **5** in organization. *The organization enhances the central idea...an inviting beginning draws the reader in. "Come on, hurry up, Stacey." I yelled...we were almost ready to deliver the gifts. Details fit where placed.* In the conclusion, the writer reflects on this experience, which *provides a satisfying sense of resolution or closure.* Transitions could be stronger.

Voice: This paper scores a **4** in voice. The *writer seems committed to the topic, and there is a feeling of writing to be read.* The voice is sincere and strong in places, particularly in the last paragraph. *This was an experience I will never forget. Seeing the childrens faces lite up is something I can't explain. I loved doing that and I would do it again for sure.* However, there are missed opportunities in other places.

Word Choice: This paper scores a **4** in word choice. *Words effectively convey the intended message. Words that work but do not particularly energize the writing. Rare experiments with language; however, the writing may have some fine moments and generally avoids cliches. I was holding a three year old girl who had received a doll that made her really happy....After every child had opened their gifts, it was time for us to go home.*

Sentence Fluency: This paper scores a **4** in fluency. *The writing flows, sentence patterns are somewhat varied, strong control over simple sentences, but variable control over more complex sentences. It was christmas time 1998, Stacy and I were loading gifts in the cars....We got the bags of presents and took them into the church all the little children were waiting for us.*

Conventions: This paper scores a **4** in conventions. The writing demonstrates control of standard writing conventions. Minor errors do not impede readability. Moderate need for editing. *Their for their, lite for lit, childrens faces (no apostrophe), christmas (not capitalized)*

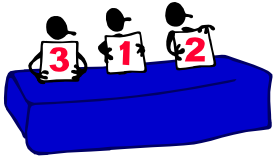
WRITING SAMPLE 3

Thanksgiving

Write the final copy of your paper here.

Thanksgiving

At thanksgiving we had our familie came over to eat turkey and the turkey was good and every body had a good time. At 6:00 every one started to leave by 6:30 every body was gone. We get a phone call from Christi, Lori's mom and she got my older sister to babysit Lori and Bobby cuz there next door neybor Elaine had a strock. Brad and Christi wanted to go see her Barb wanted Lori and Bobby to cover our house and so they did and the next morning we all all gone to town and stoped at B.R. auto parts where Lori's Mom works to see when they had to come home they didn't need to go home so we go to town and had fun and about 5 we took them home The next day was school so when we got home we call Lori and she tells us Elain was'nt doing good so they fly her to Phoenix to do surgery on her. A couple days later she was feeling better and a couple more days she goes back home and goes to bed her daughter flew from Ohio to see her and a week later we found out that she was going to move to Ohio and wen she moved we bot her a card and some cinamin roles We told her we will miss you and then we never saw her agian and we all whent home and we all felt good about our self's.



SCORE SHEET FOR WRITING SAMPLE 3

Title: Thanksgiving

(This is an UNACCEPTABLE response.)

Ideas and Content					
6	5	4	3	2	1

Organization					
6	5	4	3	2	1

Voice					
6	5	4	3	2	1

Word Choice					
6	5	4	3	2	1

Sentence Fluency					
6	5	4	3	2	1

Conventions					
6	5	4	3	2	1

NOTE 1: The underlined passages are taken from the *Official Scoring Guide for AIMS Writing (Six Trait Rubric)*.

NOTE 2: Although all writing samples in this *Guide* are on one page, two-page originals were "shrunk-to-fit" on one page.

Ideas and Content: This paper scores a **2** in ideas. The main ideas and purpose are somewhat unclear and require extensive inference by the reader. It is difficult to know where this piece is going because of the irrelevant details that clutter the text. The paper lacks a clear focus and instead, relates a series of events in sequence. Details are often unexplained or confusing to the reader. *We got a phone call, it was Christie, Lori's mom....Barb wanted Lori and Bobby to come to our house instead, so they did.*

Organization: This paper scores a 3 in organization. Attempts at sequencing, but the relationship among ideas may be unclear. Although the piece has a beginning and an ending, they are underdeveloped. The introduction does not help the reader identify where the story is going or what the purpose of the writing is; there is no hint of a main idea. The placement of details is not always effective. *The next morning we all went to town...Lori and Bobby didn't need to go home so we go to town to have some fun and about 5 we took them home.*

Voice: This paper scores a **2** in voice. Little sense of involvement or commitment; the writing is largely flat, lifeless, stiff, or mechanical. The writing tells what happens in sequence, There is a brief sense of the writer (*We told her we would miss you and then we never saw her again and we all went home and we all felt good about our selfs*), but not enough to move it to the 3 level, where voice is present but inconsistent.

Word Choice. This paper scores a **2** in word choice. Words are colorless, flat or imprecise, Images are fuzzy or absent altogether. *The turkey was great, everyone was having a good time....she was'nt doing good so they fly her to Phoenix to do surgery on her.*

Sentence Fluency: This paper scores a **2** in fluency. The writing tends to be rambling; there are a significant number of awkward, rambling constructions. Overuse of "and", "so" and run-on sentences. *Brad and Christi wanted to go see her and so they did and the next morning we all gone to town and stoped at BR auto parts where Lori's Mom works to see when they had to come home they didn't need to go home so we go to town and had fun and about 5 we took them home*

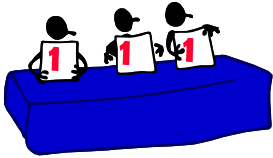
Conventions. This paper scored a **2** in conventions. Frequent errors in grammar, usage, and spelling interfere with meaning. No paragraph indentations. Frequent errors in capitalization and misuse or missing internal and end punctuation. Little control over basic conventions. Substantial need for editing.

WRITING SAMPLE 4

The Mall

Write the final copy of your paper here.

one time me and my freinds
were at the mall and we helped
a little girl find her mother



SCORE SHEET FOR WRITING SAMPLE 4

Title: The Mall

(UNACCEPTABLE Response)

Ideas and Content
6 5 4 3 2 (1)

Organization
6 5 4 3 2 (1)

Voice
6 5 4 3 2 (1)

Word Choice
6 5 4 3 2 (1)

Sentence Fluency
6 5 4 3 2 (1)

Conventions
6 5 4 3 2 (1)

NOTE 1: The underlined passages are taken from the *Official Scoring Guide for AIMS Writing* (Six Trait Rubric).

NOTE 2: This paper is a good example of a response that is too brief to demonstrate the effective control of any of the traits, and therefore, can only be scored in the 1 point range.

Ideas and Content: This paper scores a 1 in ideas and content. Ideas are extremely limited, attempts at development are minimal or nonexistent; although the paper states an idea, it is too brief to develop it.

Organization: This paper scores a 1 in organization. It demonstrates a lack of effective sequencing, failure to provide an identifiable beginning, middle, and ending; a lack of transitions.

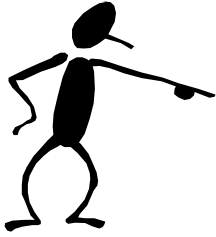
Voice: This paper scores a 1 in voice. The writing lacks a sense of commitment or involvement; it is flat and lifeless with no hint of the writer behind the words.

Word Choice: This paper scores a 1 in word choice. An extremely limited range of words is evident. General, vague words fail to communicate.

Sentence Fluency: This paper scores a 1 in fluency. Because the writing is so brief, there is no evidence of a fluent rhythm or flow to the piece, and no evidence of varied sentence patterns.

Conventions: This paper scores a 1 in conventions. Although the errors in this paper are not extreme, the writer does not demonstrate sufficient or varied use of punctuation, capitalization, spelling, grammar, or paragraph breaks. There is a limited range of conventions used in this piece.

OTHER INFORMATION REGARDING EXTENDED WRITING



Keep in mind.....

- You will be given a page in the test booklet to plan your writing. Use this space to brainstorm and organize ideas before you begin to draft. Take advantage of this space for pre-writing!
- You will be given two pages to write your final copy. This should be enough space to respond to the prompt. You are not required to fill the two pages; however, you must contain your response within two pages.
- When examining these scores, notice a higher score in one trait may compensate for a lower score in another; however, you should attempt to score at least a "4" in each trait. If you read the rubric, a "3" describes a paper that is "weaker than strong."
- Your final copy needs to be handwritten (not done on a computer). Printing your work is acceptable; however, be sure to distinguish between upper- and lower-case letters. Do NOT print in all capital letters.
- You may use a dictionary or thesaurus as a reference during the extended writing response portion of the test.
- The same scoring guide, or rubric, will be used for all the types of writing you may be asked to write (narrative, persuasive, expository, or formal communication).
- You will be given two pages to draft. Take the time to revise and edit your draft; it can help you score higher on your final copy!

- Be conscious of the traits, or characteristics, of effective writing no matter what kind of writing you are asked to do:

Ideas The heart of the message, the content of the piece, the main theme with the details that support and develop that theme.

Organization The structure of the piece of writing, including an inviting introduction, sequencing that is logical and effective, transitions that link ideas, and a satisfying conclusion.

Voice The commitment or sincerity of the writer coming through the words; matches the audience and the purpose for writing; the quality that makes you want to keep reading.

Word Choice Rich, colorful, precise words that are carefully chosen by the writer to express ideas. Natural not forced, and original phrasing that suits the topic and audience.

Sentence Fluency Sentences that vary in length, structure and style to create a rhythm and flow to the piece.

Conventions Editing a piece of writing carefully for correct spelling, grammar and usage, paragraph indenting, use of capitals, and punctuation.



To examine additional papers that will give you an even better idea of what sample papers look like with a range of higher and lower trait scores, visit the Oregon Department of Education website <http://www.open.k12.or.us>.

We extend our thanks to them for allowing us to reproduce these samples.



MATHEMATICS

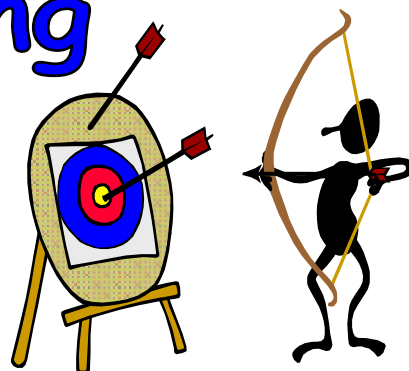
Will I ever have enough money to buy a car? How did I get a "C" in American History (and how can I get a "B")? How do I triple a great recipe for a party? Which is the better buy: a \$17.00 shirt on sale marked 20% off, or a \$19.00 shirt marked 30% off? When you ask these questions and others like them, you're using mathematics principles to get things done. People have been using these principles for thousands of years, across countries and continents, and we use them often in the course of our daily lives. And since you know how to do these questions (and you have a calculator), you don't need any more mathematics education, right? **WRONG.** Since our world is becoming more technically oriented almost daily, and we know that 75% of newly-created jobs in the 21st century require a significant understanding of mathematics, becoming fluent in this language of mathematics will help prepare you to be successful in the new millennium. Learning and understanding the concepts at the middle school level will help you achieve success in high school concepts. Don't let anyone cheat you out of a mathematics education!



About the Test

Questions in AIMS-Mathematics will require both multiple-choice responses worth 1 point each and a few (approximately 5) short answer responses worth up to 2 points each. There are approximately 45 questions and it should take *about* 1 to 2 hours to complete. However, remember that this test is **NOT** a timed test. Although calculators are not allowed, the calculations required are basic arithmetic problems and can be readily handled with pencil and paper. The questions will deal more with conceptual understanding and problem-solving skills rather than emphasizing computation skills. But it won't hurt to practice your multiplication tables!

Hints for Improving Your AIMS - Mathematics



- Remember! This is **NOT** a timed test! **Take as much time as you need** and do your best work.
- **Estimate an answer first** so you can **check** if your answer is **reasonable**.
- Calculators are not allowed in this test, so **be careful** in your calculations and **double-check** your work.
- Multiple-choice questions - look at **ALL** the choices and choose the **BEST** one.
- Short-answer problems - **show ALL your work - always!** Even if you get a wrong answer, you may still get some credit if you show the steps you took to get the answer (provided it's a valid method - that's called *correct process*).
- Write your answer as though the person reading it knows nothing about this problem. You might think a problem is so simple you shouldn't have to write out any steps. But **you will not get all the points IF** you do not show which method you used to arrive at the answer.
- On the short answer problems, be sure your explanation **is clear to the readers** and that your written response **says what you mean**.
- If you really get **stuck** on a problem, **move on** to the next question. **Don't forget to:** 1) Make sure you skip the question on your Answer Sheet, and, 2) Go back to the ones you skipped! Sometimes you'll get a fresh idea about those problems after a short break.
- Short answer problems are to be written on a grid-like space in your Answer Booklet. **This does NOT mean necessarily that you have to graph your answer.** Just write in that grid space as if it were blank space. **If** you do have to make a graph, the gridlines will help you do so.
- Be careful to label your answers correctly and completely. For instance, don't write inches when the question asks for feet.

MATHEMATICS STANDARDS:

ESSENTIALS LEVEL (GRADE 8) CONCEPTS

1M: Number Sense. Students develop number sense and use numbers and number relationships to acquire basic facts, to solve a wide variety of real-world problems, and to determine the reasonableness of results.

E1: Read, write and order integers, whole numbers and rational numbers

E2: Relate the basic arithmetic operations to one another (e.g., multiplication and division are inverse operations)

E3: Demonstrate proficiency with the operations of multiplication and division of whole numbers

E4: Develop and apply number theory concepts (e.g., primes, factors and multiples) to represent numbers in various ways.

E5: Represent and use numbers in equivalent forms (integers, fractions, percents, decimals, exponents, scientific notation and square roots).

E6: Recognize that the degree of precision needed in calculating a number depends on how the results will be used and the instruments used to generate the measurements.

2M: Data Analysis and Probability. Students use data collection and analysis, statistics, and probability to make valid inferences, decisions and arguments, and to solve a variety of real-world problems.

E1: Construct, read, analyze and interpret tables, charts, graphs, and data plots.

E2: Make valid inferences, predictions, and arguments based on statistical analysis.

E3: Display and use measures of range and central tendency (i.e., mean, median, mode).

E4: Use counting strategies to determine all the possible outcomes of a particular event.

E5: Determine probabilities through experiments and/or simulations and compare the results with the mathematical expectation.

3M: Patterns, Algebra, and Functions. Students use algebraic methods to explore, model, and describe patterns, relationships, and functions involving numbers, shapes, data, and graphs within a variety of real-world problem-solving situations.

E1: Use algebraic methods (write number sentences, in the form of expressions and equations) to explore, model, and describe patterns and functions involving numbers, shapes, data, graphs, and data plots.

E2: (This concept is covered in 3M-E1 and 3M-E4).

E3: Describe the concepts of variables, expressions, equations, and inequalities.

E4: Analyze functional relationships to explain how a change in one variable results in a change in another.

E5: Use patterns and functions to represent and solve problems, both formally and informally.

E6: Distinguish between linear and non-linear functions through investigations.

E7: Solve simple linear equations and inequalities using a variety of methods and a variety of manipulatives.

E8: Develop, analyze, and explain methods for solving proportions.

(continued on next page)

MATHEMATICS STANDARDS: ESSENTIALS LEVEL (GRADE 8) CONCEPTS

(Continued from previous page)

4M: Geometry. Students use geometric methods, properties, and relationships as a means to recognize, draw, describe, connect, and analyze shapes and representations in the physical world.

- E1:** Visualize and draw two- and three-dimensional geometric figures
- E2:** Apply geometric properties and relationships such as congruence, similarity, angle measure, parallelism, and perpendicularity to real-world situations.
- E3:** Perform elementary transformations (e.g., tessellations, flips, slides, and rotations).
- E4:** Represent and solve problems relating to size, shape, area, and volume using geometric models.

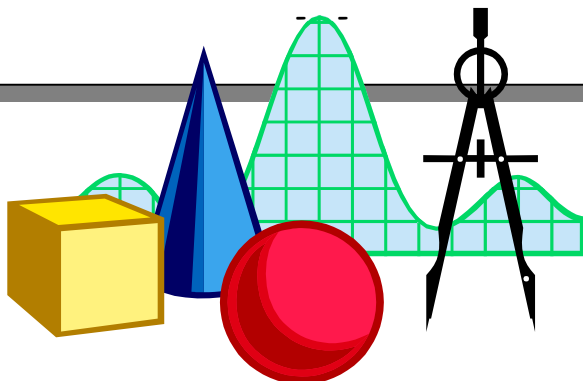
5M: Measurement and Discrete Mathematics. Students make and use direct and indirect measurement, metric and U.S. customary, to describe and compare the real world and to prepare for the study of discrete functions, fractals, and chaos that have evolved out of the age of technology.

- E1:** Estimate, make and use measurements (U.S. customary and metric) to describe and make comparisons.
- E2:** Select and use appropriate units and tools to measure to the degree of accuracy required in a particular problem-solving situation.
- E3:** Estimate, use and describe measures of distance, perimeter, area, volume, capacity, weight, mass, and angles.
- E4:** Develop and use formulas and procedures to solve problems involving measurement.
- E5:** Describe how a change in the linear dimension of an object affects its perimeter, area, and volume.
- E6:** Use calculators and computers to perform basic recursive and iterative processes.

6M: Mathematical Structure/Logic. Students use both inductive and deductive reasoning as they make conjectures and test the validity of arguments.

- E1:** Use models to explain how ratios, proportions, and percents can be used to solve problems and apply reasoning processes.
- E2:** Construct, use, and explain algorithmic procedures for computing and estimating with whole numbers, fractions, decimals, and integers.
- E3:** Use *if...then* statements to construct simple valid arguments.

NOTE: Please see the *Standards* document for the complete presentation of the mathematics standards and concepts. They can be located on our web site at <http://www.ade.az.gov/standards/contentstandards.asp>



SAMPLE QUESTIONS - MATHEMATICS

What To Expect From This Section

This 8th Grade Student Guide for *Mathematics* provides examples of the format and types of questions that will appear on the test. Each of the six Standards is presented with some *general* concepts listed for that section. However, these lists do *not* include every concept. See the publication "*Arizona Academic Standards*" to find a complete listing of the concepts for each Standard in the "*Essentials*" section. If you don't have one of these at home, see your teacher. Each question in this *Guide* is referenced to the standard and concept it is assessing. An attempt has been made to provide a sampling of the types of questions that might be asked; but not every concept in each standard has a corresponding sample question in this *Guide*. An answer key for all mathematics sample questions is provided in the Appendix A Mathematics Key (page 48), including acceptable answers for short-answer questions. Finally, you will find a blank answer sheet master on page 46. Make as many copies of this master as you like to practice writing your responses to the short-answer questions.

STANDARD 1: Number Sense

General concepts you should know:

- Compare and order whole numbers, common fractions, decimals, and rational numbers
- Order of operations to simplify numerical expressions
- Prime factorization
- Magnitude of whole and rational numbers
- Calculations using multiplication/division (two-digit divisors, with remainders and rounding in context)
- Simple squares and square roots
- Apply appropriate strategy using estimation and rounding

Question 1 (concept 1M.E4.PO5 - simplify numerical expressions using order of operations)

Simplify:

$$6 \times 2 + 4^2 - \left(\frac{21}{7} + 2\right)$$

- A. 19
- B. 23
- C. 27
- D. 211

Question 2 (concept 1M.E1.PO1-d - Compare and order using concrete or illustrated models...rational numbers)


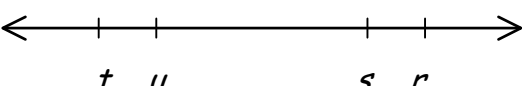
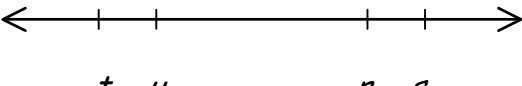
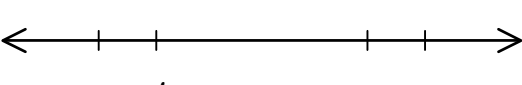
Which number line shows r , s , t , and u from LEAST to GREATEST?

$$r = 3.5$$

$$s = 3\frac{3}{8}$$

$$t = -3.18$$

$$u = -3.03$$

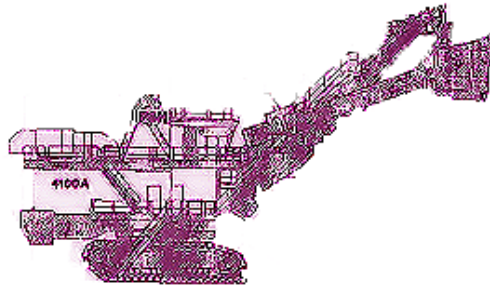
- A. 
- B. 
- C. 
- D. 

Question 3 (concept 1M.E3.PO1 - calculate using multiplication/division)

Thirteen students made \$248.30 from a bake sale. They divided the money evenly. How much was each student's share?

- A. \$18.99
- B. \$19.00
- C. \$19.01
- D. \$19.10

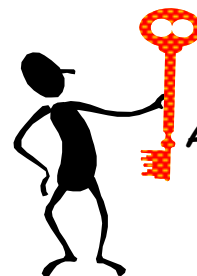
Question 4 (1M.E6.PO2 - apply the appropriate strategy when calculating to solve problems)



(Thanks to Bob Kusel from Minepro Services (Harnischfeger Corporation) for the information on the mining equipment.)

One piece of equipment used at various copper mines in Arizona is the "4100A" shovel shown above. The "4100A" weighs over $1\frac{1}{4}$ tons. During one excavation, the "4100A" is to be used to dig out 1,200 cubic yards of rock. If the maximum load capacity of the bucket is 56 cubic yards of rock, what is the least number of loads the "4100A" will have to move to complete the job?

- A. 21.4
- B. 22
- C. 44.8
- D. 960



Answer key is on page 49

STANDARD 2: Data Analysis and Probability

General concepts you should know:

- Construct charts, tables, plots using the appropriate graphical format to present the data (for instance, stem-and-leaf plots, box-and-whiskers plots, and scatterplots), and graphs (bar, circle, or line) and draw simple conclusions
- Compare results of an investigation with a given prediction
- Consider the effects of missing or incorrect information
- Measures of central tendency (mean, median, mode)
- Counting strategies, outcome sets, probability

Question 5 (concept 2M.E4.PO1-b - find all possible outcome sets involving 2 or more sets of objects)

Read the following problem.

The owner of a restaurant is redecorating the main dining room. She has a choice of 2 colors of tile for the floor (green or blue), 2 types of window coverings (shutters or curtains), and 2 patterns of wallpaper (checked or striped). If she wants to combine 1 tile color, 1 window covering, and 1 wallpaper pattern, write the outcome set representing her possible choices.

NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.

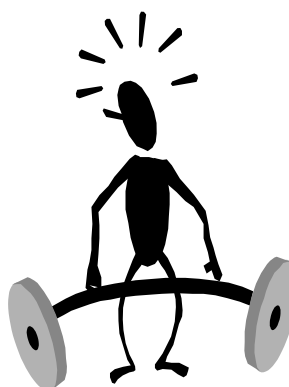
Question 6 (concept 2M.E1.PO3 - choose an appropriate graphical format to organize and represent data)

The table below shows a family budget.

FAMILY BUDGET	
Expenses	Percent of Income
Food	30
Rent	30
Clothing	10
Health	20
Other	10

What is the best way to display the information in the table?

- A. box-and-whiskers plot
- B. circle graph
- C. scatter plot
- D. line graph



REMEMBER! Even if math is hard for you, you can get better with practice.

Ask questions if you need help. **DON'T GIVE UP!!!**

Question 7 (concept 2M.E3.PO2 - find the median, mean, mode, and range of a data set)

The table below shows the total number of miles a track team ran in 1 week.

Day	# of Miles
Monday	42
Tuesday	48
Wednesday	32
Thursday	42
Friday	45

What is the mean distance run per day by the track team?

- A. 32
- B. 41.8
- C. 42
- D. 48.1

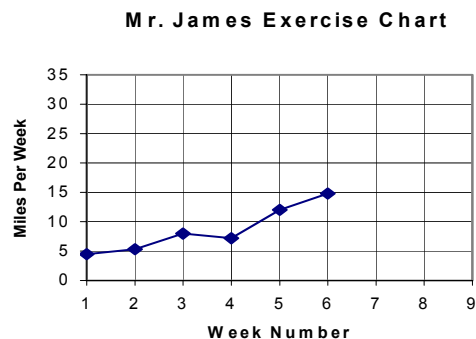
Question 8 (concept 2M.E5.PO4 - express probability as a fraction, zero, or 1)

Veronica's athletic team consists of 3 swimmers, 5 cyclists, and 4 runners. To name the team captain, the coach chose a team member at random. What is the probability the person chosen was a cyclist?

- A. $\frac{5}{12}$
- B. $\frac{7}{12}$
- C. $\frac{5}{7}$
- D. 1

Question 9 (concept 2M.E2.PO2 - compare a given prediction with the results of an investigation)

Mr. James decided to get more exercise by walking. During the first 6 weeks, he graphed the number of miles he walked each week. He predicted that in 8 weeks, he would be walking 30 miles per week. Which statement about his prediction is correct?



- A. Mr. James' prediction is right because he has been walking more miles every week.
- B. Mr. James' prediction is wrong because no one can walk that many miles in 1 week.
- C. Mr. James' prediction is right because he walks very fast.
- D. Mr. James' prediction is wrong because at the rate he is going, he won't walk that many miles per week until sometime after the 10th week.

STANDARD 3: Algebra

Concepts you should know:

- Writing number sentences, in the form of expressions and equations
- Translate written phrases into an algebraic expression and vice versa
- Evaluate an expression
- Produce the rule that explains the relationship between numbers
- Distinguish between linear and nonlinear functions given a graphical example
- Solve simple linear equations
- Solve proportions

Question 10 (concept 3M.E1.PO4 - generate patterns using algebraic expressions)

What is the number pattern generated by $3 + \frac{n}{2}$, when $n = 1, 2, 3, 4 \dots$.

- A. 4, 7, 10, 13...
- B. $3\frac{1}{2}, 4\frac{1}{2}, 5\frac{1}{2}, 6\frac{1}{2} \dots$
- C. $3\frac{1}{2}, 4, 4\frac{1}{2}, 5 \dots$
- D. $4\frac{1}{2}, 5, 6\frac{1}{2}, 7 \dots$

Question 11 (concept 3M.E3.PO2 - evaluate an expression using substitution)

Evaluate:

$$-2(x^2 + 3) - y$$

If $x = -2$ and $y = -5$, what is the value of this expression?

- A. 8
- B. 1
- C. -9
- D. -19

Question 12 (concept 3M.E5.PO1 - solve a problem given a pattern...)

How many stars and how many hexagonals will a necklace with 87 beads have if the beads are arranged in the pattern shown below? SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER.

NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.



Question 13 (concept 3M.E4.PO2 - produce the rule that explains the relationship between the numbers...)

What is the rule of the pattern in the table?

In	Out
3	7
4	10
5	13
•	•
•	•
•	•

- A. $n + 4$
- B. $4n - 5$
- C. $3n - 2$
- D. $2n + 1$

Question 14 (concept 3M.E7.PO1-b - solve equations)

Solve: $6b + 8 + 2b = -32$

- A. -16
- B. -5
- C. -2
- D. 6

Question 15 (concept 3M.E6.PO1 - distinguish between linear and non-linear functions graphically)

Which of the following graphs is linear?

- A.
- B.
- C.
- D.

Question 16 (concept 3M.E8.PO3 - solve proportions)

The ratio of dogs to cats in one small neighborhood is 3 to 2. If there are 24 cats, how many dogs are there? SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER.

NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.

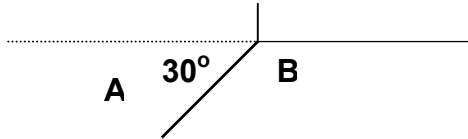
STANDARD 4: Geometry

Concepts you should know:

- Properties of two- and three-dimensional geometric figures, including how to draw them
- Congruence, similarity, angle measure, parallelism and perpendicularity
- Transformations (reflections, rotations, translations, flips, slides)
- Solve problems with given formulas

Question 17 (concept 4M.E2.PO3 - label corresponding, supplementary, and complimentary angles)

Jorge is retiling his kitchen. The diagram below shows one of the areas in the kitchen



If area B represents the floor area where he will tile, what is the measure of $\angle B$ that Jorge must use to properly fit the tile?

- A. 30° , because the angles are corresponding angles
- B. 60° , because the angles are complimentary
- C. 180° , because $\angle A$ and $\angle B$ make a straight line
- D. 150° , because the angles are supplementary

Question 18 (concept 4M.E1.PO1 - identify properties of geometric figures...)

Pat is thinking of a three-dimensional figure.

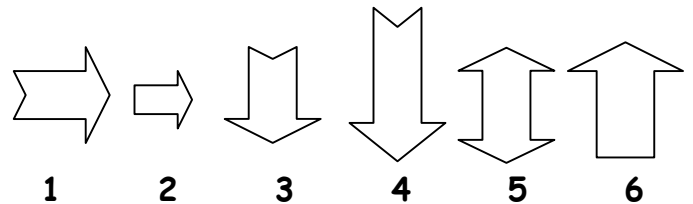
- The figure has 4 faces
- The figure has 1 square base
- The figure has 1 line of symmetry

What figure is it?

- A. cylinder
- B. rectangular prism
- C. square pyramid
- D. cube

Question 19 (concept 4M.E2.PO1 - distinguish shapes that are congruent)

Which of the following shapes are congruent?

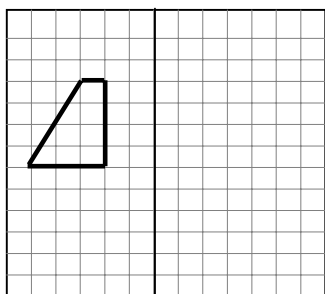


- A. 1 & 2
- B. 3 & 4
- C. 1 & 3
- D. 5 & 6

Question 20 (concept 4M.E3.PO2-b - illustrate... reflections, rotations, and translations)

On the answer grid, copy the figure and the line shown below. Then reflect the figure over the line.

NOTE: Use the blank answer grid on page 46 to practice writing your answer.



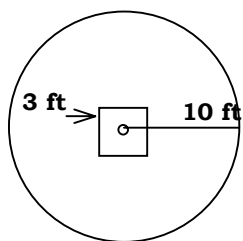
Question 21 (concept 4M.E4.PO1-b - solve problems using given formulas for area, perimeter, circumference... volume)

Sandy has created a circular area in which she plans to plant flowers. In the middle of the circle, she will leave a square area empty in order to place a birdbath. She wants to place plastic edging around both the circular area and the square area. How much edging will she actually use? Use the given formulas. **SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER.**

NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.

Circumference = $\pi d = 2\pi r$

Perimeter = $4s = 2l + 2w$



STANDARD 5: Measurement & Discrete Mathematics

Concepts you should know:

- Appropriate degree of accuracy in a particular problem-solving situation
- Estimation, use and measures of distance, perimeter, area, volume, capacity, weight, mass, and angles
- Development of procedures or formulas to calculate area, surface and volume
- Find circumference of circles, area of polygons and circles, surface areas of rectangular prisms, and volume of prisms
- Determine the effect on perimeter, area and volume when one dimension of an object is altered

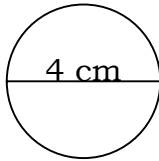
Question 22 (concept 5M.E2.PO3 - measure to the appropriate degree of accuracy)

If you wanted to send a flyer to every person in Flagstaff, estimate the number of flyers you would need to print.

- A. 700
- B. 70,000
- C. 7,000,000
- D. 700,000,000

Questions 23 (concept 5M.E3.PO2-e - estimate, use, and describe measures...)

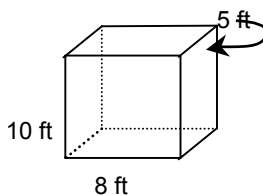
What is the approximate area of the circle below?



- A. 6 cm^2
- B. 13 cm^2
- C. 16 cm^2
- D. 50 cm^2

Question 24 (concept 5M.E4.PO1-c - develop a procedure or formula to calculate area..., surface area..., volume...)

Find the surface area of the following 3-D regular prism. **SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER.**



NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.

Question 25 (concept 5M.E5.PO2 - describe the effect on perimeter, area and volume when one dimension...is altered)

Bob is planning to put a circular window in his new house with a radius of 1 foot. But he's thinking of putting in a bigger window with a radius of 2 feet. How much would the area of the bigger window change?

- A. It would be double
- B. It would be triple
- C. It would be quadruple
- D. It would be half

STANDARD 6: Mathematical Structure and Logic

Concepts you should know:

- Ratios, proportions, and percents
- Algorithmic procedures
- Construction of simple valid arguments
- Solve problems using deductive reasoning

Question 26 (concept 6M.E1.PO1 - communicate how to solve problems involving ratios, proportions and percents...)

Karen is the employee benefits representative of a company. She knows that approximately 6 out of 10 employees wear glasses and there are 120 employees. An optical company is offering safety lenses at a discount rate and wants to know the approximate total number of employees who wear glasses. What proportion should Karen use to solve this problem?

- A. $\frac{6}{120} = \frac{x}{10}$
- B. $\frac{6}{x} = \frac{120}{10}$
- C. $\frac{6}{10} = \frac{x}{120}$
- D. $\frac{x}{6} = \frac{10}{120}$

Question 27 (concept 6M.E2.PO1- design a method with a series of defined steps for solving a problem; justify the method)

The ABC organization wanted to hold a bake sale to help their members travel to Washington, D.C. They separated into 3 groups. In the first group, $\frac{1}{3}$ of the 30 items they made was chocolate cake. In the second group, $\frac{1}{2}$ of the 50 items they made was chocolate cake. In the third group, $\frac{5}{6}$ of the 48 items they made was chocolate cake. EXPLAIN IN DETAIL HOW YOU WOULD FIND HOW MANY CHOCOLATE CAKES WERE BAKED BY THE ENTIRE GROUP.

NOTE: Use a copy of the blank answer grid on page 46 to practice writing your answer.

Question 28 (concept 6M.E3.PO1 - construct simple valid arguments using "if-then" statements)

Rick's Hardware sells paint. Some of the paint is flat latex. All the paint sold at Rick's Hardware costs less than \$40.

Which of the following statements is true?

- A. If a can of paint costs over \$40, then it could not be flat latex.
- B. If the color of the paint is blue, then it was not bought at Rick's Hardware.
- C. If a can of paint costs less than \$40, then it could be pink.
- D. If a can of paint is semi-gloss, then it costs more than \$40.

Blank Answer Sheet Master for Short Answer Mathematics Problems

Make copies of this sheet to practice your short answer questions. (Note that the answer space for short-answer questions is a grid. This does NOT mean that you are to graph your answer. Simply write your explanation or show your work in the grid.)

Answer Grid. SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER!

A full page of graph paper featuring a uniform grid of small squares formed by dashed black lines on a white background. The grid covers the entire area of the page, leaving no margins.

Answer Grid. SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER!

A full page of graph paper featuring a uniform grid of small squares formed by dashed black lines. The grid covers the entire area of the page, leaving no margins or additional markings.

Answer Grid. SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER!

A full page of graph paper featuring a uniform grid of small squares formed by dashed black lines on a white background. The grid covers the entire area of the page, providing a template for drawing or plotting.

Answer Grid. SHOW ALL THE STEPS YOU TOOK TO FIND YOUR ANSWER!

[illegible]

APPENDICES

APPENDIX A - ANSWER KEYS



READING KEY



Question 1	C
Question 2	C
Question 3	C
Question 4	A
Question 5	C
Question 6	B
Question 7	C
Question 8	A

Question 9 Score Points:

2 points: Response gives three supporting facts from the article: the goals Pelé scored in the first season, the world tour, and the money it made.

1 point: Response gives two or fewer supporting facts.

0 points: Other responses.

Example of a 2 Point Response for Reading Question 9:

In his first full season with Santos, Pelé scored a record 65 goals. Officials of the Santos club set up a world tour featuring Pelé. The tour was a big success and made millions for the club.

Example of a 1 Point Response for Reading Question 9:

He became the highest paid athlete in the world. He is the only man to play for three World Cup championships.

Question 10 Score Points:

2 points: Response describes the United States' attitude toward soccer as the "mountain", and summarizes Pelé's promotional activities both on the field and off.

1 point: Response describes the United States' attitude toward soccer, but does not include details of Pelé's promotional activities.

0 points: Other responses.

Example of a 2 Point Response for Reading Question 10:

Pelé called the United States "another mountain to climb" because he saw that making soccer better known or popular would be a challenge. He responded to the challenge by drawing huge crowds to the New York Cosmos games, and by promoting soccer through talk shows, clinics, and public appearances.

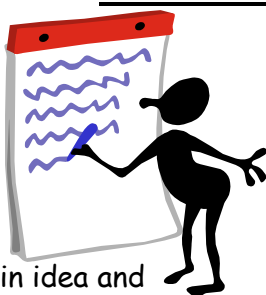
Example of a 1 Point Response for Reading Question 10:

Pelé called the United States "another mountain to climb" because people did not understand the game or recognize his accomplishments in the sport.

***PLEASE NOTE:** Responses presented here are only **examples** of student responses in that point range and do not represent the **only** acceptable response. Short answer rubrics allow for a **variety of responses** within a range.

WRITING KEY

- Question 1 D
 Question 2 C
 Question 3 C
 Question 4 D



Question 5 Score Points:

2 points: States the author's main idea and includes details.

1 point: States only the main idea or a detail from the paragraph.

0 points: Other responses.

Example of a 2 Point Response for Writing Question 5:

Summer visitors to the Arizona desert can adapt to the heat by drinking plenty of water and avoiding the sun, but the best time to visit is in the winter.

Example of a 1 Point Response for Writing Question 5:

This paragraph is about ways to deal with desert heat.

Example of a 0 Point Response for Writing Question 5:

Summer heat

***PLEASE NOTE:** Responses presented here are only **examples** of student responses in that point range and do not represent the **only** acceptable response. Short answer rubrics allow for a **variety of responses** within a range.

Question 6 Score Points:

3 points: Student response has a clear beginning, middle, and end, states what position the writer is applying for, and what qualifications she/he has.

2 points: Beginning, middle, and end may not be clear, and some details may be missing (Position or qualifications).

1 point: Beginning, middle, and end may be missing, and important information is missing (position or qualifications); or simply restates the question.

0 points: Other responses.

Example of a 3 Point Response for Writing Question 6:

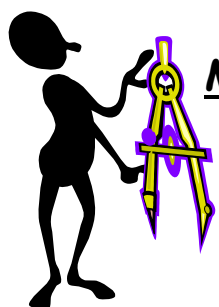
*To the Director of Camp Sunrise:
 I am a fifteen-year old girl who just completed eighth grade at Mountain Shadows Middle School. I am interested in applying as an assistant camp counselor for young children.
 I think I have the qualifications and experience you are looking for. I love little kids. I have volunteered the last two years in the preschool program at my church. I read stories, played games, and organized arts and crafts activities for 3 and 4 year olds every Sunday morning. I also have had CPR and first aid training and am certified in junior lifesaving. I enjoy outdoor activities such as camping and hiking, and have played sports on my school's volleyball, soccer, and girls' softball teams. I am available June 1 and can be reached at 222-333-4444. I hope to hear from you soon.*

Example of a 2 Point Response for Writing Question 6:

*To the Camp Director:
 I would like to apply for the job at your camp as an assistant camp counselor. I think I would do a good job. I have experience working with young children, especially babysitting.*

Example of a 1 Point Response for Writing Question 6:

*To the Camp Director:
 I am interested in volunteering during the summer. I would be an excellent choice for the job.*



MATHEMATICS KEY

Question 1 B

Question 2 B

Question 3 D

Question 4 B

Question 5 Score Points:

NOTE: The answer may be represented as a list, a set, or a tree diagram.

2 points: Correct response

Example

{{(blue, checked, shutters), (blue, checked, curtains)
(blue, striped, shutters), (blue, striped, curtains),
(green, checked, shutters), (green, checked, curtains),
(green, striped, shutters), (green, striped, curtains)}}

1 point: Any one of the following:

A set containing 6 or 7 out of 8 correct elements.

Correctly stating 8 with no outcome set, or incorrect/incomplete outcome set.

Correctly illustrating 8 elements in the outcome set, but incorrectly stating the number of elements in the element set.

0 points: Other responses.

Question 6 B

Question 7 B

Question 8 A

Question 9 D

Question 10 C

Question 11 C

Question 12 Score Points:

2 points: Correct response, 30 stars and 43 hexagonals, with supporting work

Example

$87 \text{ beads} \div 6 \text{ beads/pattern} = 14 \text{ patterns}$
with a remainder of 3 beads that contains 2 stars and 1 hexagonal

$2 \text{ stars/pattern} \times 14 \text{ patterns} = 28 \text{ stars}$,
plus the 2 stars from remainder = 30 stars

$3 \text{ hexagonals/pattern} \times 14 \text{ patterns} =$
42 hexagonals, plus 1 hexagonal from remainder = 43 hexagonals

1 point: Any one of the following:

- One correct response: 30 stars or 43 hexagonals. Must show supporting work.
- Showing correct process for stars or hexagonals with an incorrect or missing answer.
- Stating 30 stars and 43 hexagonals with incorrect work shown (must be logical to this problem)

Question 13 C

Question 14 B

Question 15 C

Question 16 Score Points:

2 points: Correct response and correct process

$$\frac{3 \text{ dogs}}{2 \text{ cats}} = \frac{x \text{ dogs}}{24 \text{ cats}} \Rightarrow x = 36 \text{ dogs}$$

1 point: Any one of the following:

- Correct response with incorrect/inconclusive work.
- Correct process with incorrect answer.

0 points: Other responses.

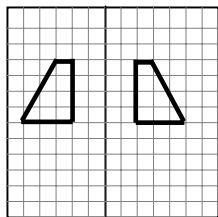
Question 17 D

Question 18 C

Question 19 C

Question 20 Score Points:

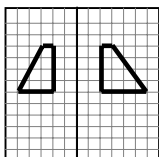
2 points: Student correctly reflects figure (see example 1 below)



1 point: Student responds in any **one** of the following (see examples 2-6 below):

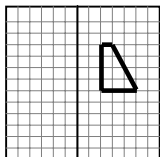
Example 2

A correctly reflected figure with at least 3 correct vertices



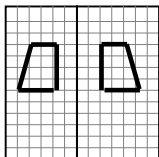
Example 3

A correctly reflected figure with the original figure not shown



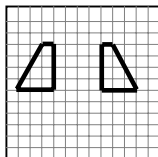
Example 4

Sketching a *different* figure, but reflecting it *correctly*



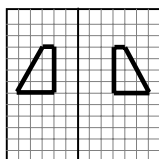
Example 5

Correctly reflecting the line of reflection over an implied line of reflection



Example 6

Correctly reflecting the original figure and shifting horizontally from the line of reflection (no more than 1 unit)



0 points: Other responses

Question 21 Score Points:

2 points: Correct process and correct answer, 74.8 ft. This may be rounded to 75 ft.

Note: If units are given, they must be in some form of the original units for full credit.

Ex. 1: $2(3.14)(10) + 4 \cdot 3 = 74.8 \text{ ft.} \Rightarrow 75 \text{ ft.}$

Ex. 2: $2 \left(\frac{22}{7} \right) (10) + 4 \cdot 3 = 74.9 \text{ ft} \Rightarrow 75 \text{ ft.}$

1 point: Any one of the following:

- Correct answer of 74.8 ft (or 75 ft) with incorrect or incomplete work.
- Correct process with incorrect answer.
- Correct process with correct answer for one area.

0 points: Other responses.

Question 22 B

Question 23 B

Question 24 Score Points:

2 points: Correct process and correct answer, 340 ft^2 (340 square feet)

Ex. 1: $2(10 \cdot 8) + 2(5 \cdot 10) + 2(8 \cdot 5) = 340 \text{ sq ft}$

Ex. 2: $10 \cdot 8 + 10 \cdot 8 + 2 \cdot 5 + 2 \cdot 5 + 8 \cdot 5 + 8 \cdot 5 = 340 \text{ ft}^2$

1 point: Any one of the following:

- Correct process with an incorrect answer
- Correct answer of 340 square feet with incorrect or incomplete work
- Correct process with correct answers for 2 appropriate areas

0 points: Other responses

Question 25 C

Question 26 C

Question 27 Score Points:

2 points: Correct process and correct answer.

Example:

1. Find how many chocolate cakes group 1 made.

$$\frac{1}{3}(30) = 10$$

2. Find how many chocolate cakes group 2 made.

$$\frac{1}{2}(50) = 25$$

3. Find how many chocolate cakes group 3 made.

$$\frac{5}{6}(48) = 40$$

4. Add them all together.

$$10 + 25 + 40 = 75 \text{ chocolate cakes}$$

1 point: For any one of the following:

- Correct response (75 chocolate cakes) with incorrect or incomplete work.
- Correct process with an incorrect response
($10 + 25 + 40$ does not equal 75).
- Correct process and/or correct answers for the number of cakes made by each group.

0 points: Other responses.

Question 28 C



IDEAS and CONTENT

<h1 style="text-align: center;">APPENDIX B: OFFICIAL SCORING GUIDE FOR AIMS WRITING</h1>		
<p>6 The writing is exceptionally clear, focused and interesting. It holds the reader's attention throughout. Main ideas stand out and are developed by strong support and rich details suitable to audience and purpose. The writing is characterized by</p> <ul style="list-style-type: none"> • clarity, focus, and control. • main idea(s) that stand out. • supporting, relevant, carefully selected details; when appropriate, use of resources provides strong, accurate, credible support. • a thorough, balanced, in-depth explanation/ exploration of the topic; the writing makes connections and shares insights. • content and selected details that are well suited to audience and purpose. 	<p>5 The writing is clear, focused and interesting. It holds the reader's attention. Main ideas stand out and are developed by supporting details suitable to audience and purpose. The writing is characterized by</p> <ul style="list-style-type: none"> • clarity, focus, and control. • main idea(s) that stand out. • supporting, relevant, carefully selected details; when appropriate, use of resources provides strong, accurate, credible support. • a thorough, balanced explanation/exploration of the topic; the writing makes connections and shares insights. • content and selected details that are well-suited to audience and purpose. 	<p>4 The writing is clear and focused. The reader can easily understand the main ideas. Support is present, although it may be limited or rather general. The writing is characterized by</p> <ul style="list-style-type: none"> • an easily identifiable purpose. • clear main idea(s) • supporting details that are relevant, but may be overly general or limited in places; when appropriate, resources are used to provide accurate support. • a topic that is explored/explained, although developmental details may occasionally be out of balance with the main idea(s); some connections and insights may be present. • content and selected details that are relevant, but perhaps not consistently well chosen for audience and purpose.
<p>3 The reader can understand the main ideas, although they may be overly broad or simplistic, and the results may not be effective. Supporting detail is often limited, insubstantial, overly general, or occasionally slightly off-topic. The writing is characterized by</p> <ul style="list-style-type: none"> • an easily identifiable purpose and main idea(s). • predictable or overly-obvious main ideas or plot; conclusions or main points seem to echo observations heard elsewhere. • support that is attempted; but developmental details that are often limited in scope, uneven, somewhat off-topic, predictable, or overly general. • details that may not be well-grounded in credible resources; they may be based on clichés, stereotypes or questionable sources of information. • difficulties when moving from general observations to specifics. 	<p>2 Main ideas and purpose are somewhat unclear or development is attempted but minimal. The writing is characterized by</p> <ul style="list-style-type: none"> • a purpose and main idea(s) that may require extensive inferences by the reader. • minimal development; insufficient details. • irrelevant details that clutter the text. • extensive repetition of detail. 	<p>1 The writing lacks a central idea or purpose. The writing is characterized by</p> <ul style="list-style-type: none"> • ideas that are extremely limited or simply unclear. • attempts at development that are minimal or non-existent; the paper is too short to demonstrate the development of an idea.

ORGANIZATION

<p>6 The organization enhances the central idea(s) and its development. The order and structure are compelling and move the reader through the text easily. The writing is characterized by</p> <ul style="list-style-type: none"> • effective, perhaps creative, sequencing; the organizational structure fits the topic, and the writing is easy to follow. • a strong, inviting beginning that draws the reader in and a strong satisfying sense of resolution or closure. • smooth, effective transitions among all elements (sentences, paragraphs, and ideas). • details that fit where placed. 	<p>5 The organization enhances the central idea(s) and its development. The order and structure are strong and move the reader through the text. The writing is characterized by.</p> <ul style="list-style-type: none"> • effective sequencing; the organizational structure fits the topic, and the writing is easy to follow. • an inviting beginning that draws the reader in and a satisfying sense of resolution or closure. • smooth, effective transitions among all elements (sentences, paragraphs, and ideas). • details that fit where placed. 	<p>4 Organization is clear and coherent. Order and structure are present, but may seem formulaic. The writing is characterized by</p> <ul style="list-style-type: none"> • clear sequencing. • an organization that may be predictable. • a recognizable, developed beginning that may not be particularly inviting; a developed conclusion that may lack subtlety. • a body that is easy to follow with details that fit where placed. • transitions that may be stilted or formulaic. • organization which helps the reader, despite some weaknesses.
<p>3 An attempt has been made to organize the writing; however, the overall structure is inconsistent or skeletal. The writing is characterized by</p> <ul style="list-style-type: none"> • attempts at sequencing, but the order or the relationship among ideas may occasionally be unclear. • a beginning and an ending which, although present, are either undeveloped or too obvious (e.g. "My topic is..." "These are all the reasons that...") • transitional devices that sometimes work. The same few transitional devices (e.g., coordinating conjunctions, numbering, etc.) may be overused. • a structure that is skeletal or too rigid. • placement of details that may not always be effective. • organization which lapses in some places, but helps the reader in others. 	<p>2 The writing lacks a clear organizational structure. An occasional organizational device is discernible; however, the writing is either difficult to follow and the reader has to reread substantial portions, or the piece is simply too short to demonstrate organizational skills. The writing is characterized by</p> <ul style="list-style-type: none"> • some attempts at sequencing, but the order or the relationship among ideas is frequently unclear. • a missing or extremely undeveloped beginning, body, and/or ending. • a lack of transitions, or when present, ineffective or overused. • a lack of an effective organizational structure. • details that seem to be randomly placed, leaving the reader frequently confused. 	<p>1 The writing lacks coherence; organization seems haphazard and disjointed. Even after rereading, the reader remains confused. The writing is characterized by</p> <ul style="list-style-type: none"> • a lack of effective sequencing. • a failure to provide an identifiable beginning, body and/or ending. • a lack of transitions. • pacing that is consistently awkward; the reader feels either mired down in trivia or rushed along too rapidly. • a lack of organization which ultimately obscures or distorts the main point.

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VOICE

<p>6 The writer has chosen a voice appropriate for the topic, purpose and audience. The writer seems deeply committed to the topic, and there is an exceptional sense of “writing to be read.” The writing is expressive, engaging, or sincere. The writing is characterized by</p> <ul style="list-style-type: none"> • an effective level of closeness to or distance from the audience (e.g., a narrative should have a strong personal voice, while an expository piece may require extensive use of outside resources and a more academic voice; nevertheless, both should be engaging, lively, or interesting. Technical writing may require greater distance.). • an exceptionally strong sense of audience; the writer seems to be aware of the reader and of how to communicate the message most effectively. The reader may discern the writer behind the words and feel a sense of interaction. • a sense that the topic has come to life; when appropriate, the writing may show originality, liveliness, honesty, conviction, excitement, humor, or suspense. 	<p>5 The writer has chosen a voice appropriate for the topic, purpose, and audience. The writer seems committed to the topic, and there is a sense of “writing to be read.” The writing is expressive, engaging or sincere. The writing is characterized by</p> <ul style="list-style-type: none"> • an appropriate level of closeness to or distance from the audience (e.g., a narrative should have a strong personal voice while an expository piece may require extensive use of outside resources and a more academic voice; nevertheless, both should be engaging, lively or interesting. Technical writing may require greater distance.). • a strong sense of audience; the writer seems to be aware of the reader and of how to communicate the message most effectively. The reader may discern the writer behind the words and feel a sense of interaction. • a sense that the topic has come to life; when appropriate, the writing may show originality, liveliness, honesty, conviction, excitement, humor, or suspense. 	<p>4 A voice is present. The writer demonstrates commitment to the topic, and there may be a sense of “writing to be read.” In places, the writing is expressive, engaging, or sincere. The writing is characterized by</p> <ul style="list-style-type: none"> • a questionable or inconsistent level of closeness to or distance from the audience. • a sense of audience; the writer seems to be aware of the reader but has not consistently employed an appropriate voice. The reader may glimpse the writer behind the words and feel a sense of interaction in places. • liveliness, sincerity, or humor when appropriate; however, at times the writing may be either inappropriately casual or personal, or inappropriately formal and stiff.
<p>3 The writer’s commitment to the topic seems inconsistent. A sense of the writer may emerge at times; however, the voice is either inappropriately personal or inappropriately impersonal. The writing is characterized by</p> <ul style="list-style-type: none"> • a limited sense of audience; the writer’s awareness of the reader is unclear. • an occasional sense of the writer behind the words; however, the voice may shift or disappear a line or two later and the writing become somewhat mechanical. • a limited ability to shift to a more objective voice when necessary. 	<p>2 The writing provides little sense of involvement or commitment. There is no evidence that the writer has chosen a suitable voice. The writing is characterized by</p> <ul style="list-style-type: none"> • little engagement of the writer; the writing tends to be largely flat, lifeless, stiff, or mechanical. • a voice that is likely to be overly informal and personal. • a lack of audience awareness; there is little sense of “writing to be read.” • little or no hint of the writer behind the words. There is rarely a sense of interaction between reader and writer. 	<p>1 The writing seems to lack a sense of involvement or commitment. The writing is characterized by</p> <ul style="list-style-type: none"> • no engagement of the writer; the writing is flat and lifeless. • a lack of audience awareness; there is no sense of “writing to be read.” • no hint of the writer behind the words. There is no sense of interaction between writer and reader; the writing does not involve or engage the reader.

WORD CHOICE

<p>6 Words convey the intended message in an exceptionally interesting, precise, and natural way appropriate to audience and purpose. The writer employs a rich, broad range of words which have been carefully chosen and thoughtfully placed for impact. The writing is characterized by</p> <ul style="list-style-type: none"> • accurate, strong, specific words; powerful words energize the writing. • fresh, original expression; slang, if used seems purposeful and is effective. • vocabulary that is striking and varied, but that is natural and not overdone. • ordinary words used in an unusual way. • words that evoke strong images; figurative language may be used. 	<p>5 Words convey the intended message in an interesting, precise, and natural way appropriate to audience and purpose. The writer employs a broad range of words which have been carefully chosen and thoughtfully placed for impact. The writing is characterized by</p> <ul style="list-style-type: none"> • accurate, specific words; word choices energize the writing. • fresh, vivid expression; slang, if used, seems purposeful and is effective. • vocabulary that may be striking and varied, but that is natural and not overdone. • ordinary words used in an unusual way. • words that evoke clear images; figurative language may be used. 	<p>4 Words effectively convey the intended message. The writer employs a variety of words that are functional and appropriate to audience and purpose. The writing is characterized by</p> <ul style="list-style-type: none"> • words that work but do not particularly energize the writing. • expression that is functional; however, slang, if used, does not seem purposeful and is not particularly effective. • attempts at colorful language that may occasionally seem overdone. • occasional overuse of technical language or jargon. • rare experiments with language; however, the writing may have some fine moments and generally avoids clichés.
<p>3 Language is quite ordinary, lacking interest, precision and variety, or may be inappropriate to audience and purpose in places. The writer does not employ a variety of words, producing a sort of “generic” paper filled with familiar words and phrases. The writing is characterized by</p> <ul style="list-style-type: none"> • words that work, but that rarely capture the reader’s interest. • expression that seems mundane and general; slang, if used, does not seem purposeful and is not effective. • attempts at colorful language that seem overdone or forced. • words that are accurate for the most part, although misused words may occasionally appear, technical language or jargon may be overused or inappropriately used. • reliance on clichés and overused expressions. 	<p>2 Language is monotonous and/or misused, detracting from the meaning and impact. The writing is characterized by</p> <ul style="list-style-type: none"> • words that are colorless, flat or imprecise. • monotonous repetition or overwhelming reliance on worn expressions that repeatedly distract from the message. • images that are fuzzy or absent altogether. 	<p>1 The writing shows an extremely limited vocabulary or is so filled with misuses of words that the meaning is obscured. Only the most general kind of message is communicated because of vague or imprecise language. The writing is characterized by</p> <ul style="list-style-type: none"> • general, vague words that fail to communicate. • an extremely limited range of words. • words that simply do not fit the text; they seem imprecise, inadequate, or just plain wrong.

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SENTENCE FLUENCY

<p>6 The writing has an effective flow and rhythm. Sentences show a high degree of craftsmanship, with consistently strong and varied structure that makes expressive oral reading easy and enjoyable. The writing is characterized by</p> <ul style="list-style-type: none"> • a natural, fluent sound; it glides along with one sentence flowing effortlessly into the next. • extensive variation in sentence structure, length, and beginnings that add interest to the text. • sentence structure that enhances meaning by drawing attention to key ideas or reinforcing relationships among ideas. • varied sentence patterns that create an effective combination of power and grace. • strong control over sentence structure; fragments, if used at all, work well. • stylistic control; dialogue, if used, sounds natural. 	<p>5 The writing has an easy flow and rhythm. Sentences are carefully crafted, with strong and varied structure that makes expressive oral reading easy and enjoyable. The writing is characterized by</p> <ul style="list-style-type: none"> • a natural, fluent sound; it glides along with one sentence flowing into the next. • variation in sentence structure, length, and beginnings that add interest to the text. • sentence structure that enhances meaning. • control over sentence structure; fragments, if used at all, work well. • stylistic control; dialogue, if used, sounds natural. 	<p>4 The writing flows; however, connections between phrases or sentences may be less than fluid. Sentence patterns are somewhat varied, contributing to ease in oral reading. The writing is characterized by</p> <ul style="list-style-type: none"> • a natural sound; the reader can move easily through the piece, although it may lack a certain rhythm and grace. • some repeated patterns of sentence structure, length, and beginnings that may detract somewhat from overall impact. • strong control over simple sentence structures, but variable control over more complex sentences; fragments, if present, are usually effective. • occasional lapses in stylistic control; dialogue, if used, sounds natural for the most part, but may at times sound stilted or unnatural.
<p>3 The writing tends to be mechanical rather than fluid. Occasional awkward constructions may force the reader to slow down or reread. The writing is characterized by</p> <ul style="list-style-type: none"> • some passages that invite fluid oral reading; however, others do not. • some variety in sentences structure, length, and beginnings, although the writer falls into repetitive sentence patterns. • good control over simple sentence structures, but little control over more complex sentences; fragments, if present, may not be effective. • sentences which, although functional, lack energy. • lapses in stylistic control; dialogue, if used, may sound stilted or unnatural. 	<p>2 The writing tends to be either choppy or rambling. Awkward constructions often force the reader to slow down or reread. The writing is characterized by</p> <ul style="list-style-type: none"> • significant portions of the text that are difficult to follow or read aloud. • sentence patterns that are monotonous (e.g., subject-verb or subject-verb-object). • a significant number of awkward, choppy, or rambling constructions. 	<p>1 The writing is difficult to follow or to read aloud. Sentences tend to be incomplete, rambling, or very awkward. The writing is characterized by</p> <ul style="list-style-type: none"> • text that does not invite—and may not even permit—smooth oral reading. • confusing word order that is often jarring and irregular. • sentence structure that frequently obscures meaning. • sentences that are disjointed, confusing, or rambling.

CONVENTIONS

<p>6 The writing demonstrates exceptionally strong control of standard writing conventions (e.g., punctuation, spelling, capitalization, paragraph breaks, grammar, and usage) and uses them effectively to enhance communication. Errors are so few and so minor that the reader can easily skim right over them unless specifically searching for them. The writing is characterized by</p> <ul style="list-style-type: none"> • strong control of conventions; manipulation of conventions may occur for stylistic effect. • strong, effective use of punctuation that guides the reader through the text. • correct spelling, even of more difficult words. • paragraph breaks that reinforce the organizational structure. • correct grammar and usage that contribute to clarity and style. • skill in using a wide range of conventions in a sufficiently long and complex piece. • little or no need for editing. 	<p>5 The writing demonstrates strong control of standard writing conventions (e.g., punctuation, spelling, capitalization, paragraph breaks, grammar, and usage) and uses them effectively to enhance communication. Errors are so few and so minor that they do not impede readability. The writing is characterized by</p> <ul style="list-style-type: none"> • strong control of conventions. • effective use of punctuation that guides the reader through the text. • correct spelling, even of more difficult words. • paragraph breaks that reinforce the organizational structure. • correct capitalization; errors, if any, are minor. • correct grammar and usage that contribute to clarity and style. • skill in using a wide range of conventions in a sufficiently long and complex piece. • little need for editing. 	<p>4 The writing demonstrates control of standard writing conventions (e.g., punctuation, spelling, capitalization, paragraph breaks, grammar, and usage). Minor errors, while perhaps noticeable, do not impede readability. The writing is characterized by</p> <ul style="list-style-type: none"> • control over conventions used, although a wide range is not demonstrated. • correct end-of-sentence punctuation, internal punctuation may sometimes be incorrect. • spelling that is usually correct, especially on common words. • basically sound paragraph breaks that reinforce the organizational structure. • correct capitalization; errors, if any, are minor. • occasional lapses in correct grammar and usage; problems are not severe enough to distort meaning or confuse the reader. • moderate need for editing.
<p>3 The writing demonstrates limited control of standard writing conventions (e.g., punctuation, spelling, capitalization, paragraph breaks, grammar, and usage). Errors begin to impede readability. The writing is characterized by</p> <ul style="list-style-type: none"> • some control over basic conventions; the text may be too simple to reveal mastery. • end-of-sentence punctuation that is usually correct; however, internal punctuation contains frequent errors. • spelling errors that distract the reader; misspelling of common words occurs. • paragraphs that sometimes run together or begin at ineffective places. • capitalization errors. • errors in grammar and usage that do not block meaning but do distract the reader. • significant need for editing. 	<p>2 The writing demonstrates little control of standard writing conventions. Frequent, significant errors impede readability. The writing is characterized by</p> <ul style="list-style-type: none"> • little control over basic conventions. • many end-of-sentence punctuation errors; internal punctuation contains frequent errors. • spelling errors that frequently distract the reader; misspelling of common words often occurs. • paragraphs that often run together or begin in ineffective places. • capitalization that is inconsistent or often incorrect. • errors in grammar and usage that interfere with readability and meaning. • substantial need for editing. 	<p>1 Numerous errors in usage, spelling, capitalization, and punctuation repeatedly distract the reader and make the text difficult to read. In fact, the severity and frequency of errors are so overwhelming that the reader finds it difficult to focus on the message and must reread for meaning. The writing is characterized by</p> <ul style="list-style-type: none"> • very limited skill in using conventions. • basic punctuation (including end-of-sentence punctuation) that tends to be omitted, haphazard, or incorrect. • frequent spelling errors that significantly impair readability. • paragraph breaks that may be highly irregular or so frequent (every sentence) that they bear no relation to the organization of the text. • capitalization that appears to be random. • a need for extensive editing.

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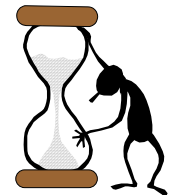
APPENDIX C

Test-Taking Strategies

A Review

(You have heard these before, but they can make a difference)

- Be physically prepared. Get plenty of rest the night before. On the day of the test, eat a healthy breakfast.
- Be mentally prepared. Try to relax and do your best. It is not unusual to feel nervous about tests. The key is being well prepared. Then you can view the test as an opportunity to truly show what you know and are able to do.
- Listen to directions as the teacher explains them. Ask about any directions you do not understand.
- Read the directions carefully.
- Look for key words that will help you identify what the question is asking you to do.
- Take your time and work at your own pace. AIMS is not a timed test, but you do want to use your time well.
- Move on to the next item if you are stuck. Return to it later.
- Make educated guesses if you are unsure of an answer. First eliminate choices that are obviously incorrect, then logically select from the remaining choices.
- Review your answers when you are finished. Re-read written responses to check that they are clear



APPENDIX D

8TH GRADE AIMS MATHEMATICS REFERENCE SHEET

Formulas

PLANE FIGURES: PERIMETERS AND AREAS

Name	Notation	Perimeter (P) (Use 3.14 for π) Circumference (C)	Area (A)
Triangle	a, b, c = sides h = height	$P = a + b + c$	$A = \frac{b \times h}{2}$
Rectangle	l = length w = width	$P = 2l + 2w$ OR $P = 2(l + w)$	$A = l \times w$
Square	s = side	$4s$	s^2
Circle	r = radius d = diameter	$C = \pi$	$A = \pi r^2$
Parallelogram	a, b = sides h = height	$P = 2(a + b)$	$A = b \times h$
Trapezoid	a, b, c, d = sides B_1 = long base B_2 = short base h = height	$P = a + b + c + d$	$A = \frac{h(B_1 + B_2)}{2}$

GEOMETRIC SOLIDS: VOLUMES

Name	Notation	Volume (V)
Rectangular Prism	a = length b = width c = height	$V = a \times b \times c$
Rectangular Pyramid	B = area of the base h = height	$V = \frac{B \times h}{3}$
Right Cylinder	r = radius h = height	$V = \pi r^2 h$
Right Cone	r = radius h = height	$V = \frac{\pi r^2 h}{3}$
Sphere	r = radius	$V = \frac{4}{3} \pi r^3$

WRITE DOWN YOUR QUESTIONS HERE!